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**National Highway  
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Buffalo, New York 14225**

**CALSPAN AIR BAG DEPLOYMENT INVESTIGATION**

**CALSPAN CASE NO. CA96-11**

**VEHICLE #1 - 1995 FORD CONTOUR  
VEHICLE #2 - 1994 LINCOLN TOWN CAR**

**LOCATION - STATE OF PENNSYLVANIA**

**CRASH DATE [REDACTED] 1996**

Contract No. DTNH22-94-D-07058

Prepared for:

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National Highway Traffic Safety Administration  
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

# TECHNICAL REPORT STANDARD TITLE PAGE

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<b>15. Supplementary Notes</b> On-site investigation of an air bag crash that resulted in serious injuries to a five year old male right front passenger.			
<b>16. Abstract</b> <p>A two vehicle front to rear crash involved a 1995 Ford Contour GL (Vehicle #1) equipped with dual front air bags and a 1994 Lincoln Continental (Vehicle #2). The crash occurred on a four lane, straight, undivided, dry, level, asphalt roadway surface. Driver #1, a 78 year old male, was returning home from the grocery store with his five year old great grandson seated in the right front passenger seat. Driver #2, a 25 year old male, stopped in the southbound travel lane in response to the presence of a police vehicle traveling in the opposite direction with its lights and siren activated. Driver #1 responded to Vehicle #2 by applying full brakes. Vehicle #1 skidded 12.5 m (41.0') and struck Vehicle #2 at a SMASH computed impact speed of 35 km/h (22 mph). The delta V computed by the SMASH program was 15.0 km/h (9 mph) for Vehicle #1 and 10.0 km/h (7.0 mph) for Vehicle #2. Both air bags in Vehicle #1 deployed as it underrode the rear bumper of Vehicle #2.</p> <p>The five year old male front occupant in Vehicle #1 was sitting forward on the seat cushion with the lap restraint belt over his abdominal area and the torso belt behind his back. During precrash braking, the boy moved forward and loaded the lap belt while his upper body moved toward the instrument panel. His face and neck were in close proximity to the right front air bag module cover at the time of the impact and subsequent Supplemental Restraint System deployment sequence.</p> <p>The deploying passenger side air bag contacted the child's neck, underside of the chin, and, face right ear as noted by the soft tissue abrasions and contusions. The boy was propelled rearward by the expanding air bag and contacted the torso restraint belt and seat back support with his head. Several small black hair fibers embedded in the torso belt webbing were attributed to contact by the back of the boy's head. He rebounded forward and came to a final rest position slumped forward between the seat and the instrument panel.</p> <p>The child was transported via ambulance to a pediatric medical facility where he was admitted with a Glasgow Coma Scale rating of 8-9. His injuries included: a closed head injury-concussive syndrome with deficit; abrasion of the right side of his face, contusion of the right ear, abrasion and contusion of the anterior neck, two chipped molars, a laceration of the tongue, and blunt abdominal trauma. He was discharged three days after the crash and resumed attendance at school five days after the crash.</p> <p>Driver #1 was restrained by the three point manual lap and shoulder restraint belt and sustained a minor injury of the right hand. He was not treated. Driver #2 was not injured.</p>			
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November 7, 1997

## **CALSPAN AIR BAG DEPLOYMENT INVESTIGATION**

**CALSPAN CASE NO. CA96-11**

**VEHICLE #1 - 1995 FORD CONTOUR GL**  
**VEHICLE #2 - 1994 LINCOLN TOWN CAR**

**LOCATION - STATE OF PENNSYLVANIA**

**CRASH DATE - [REDACTED] 1996**

### ***Background***

This investigation was initiated in response to a notification received in the month of [REDACTED] 1996 from the National Highway Traffic Safety Administration (NHTSA) that an unrestrained five year old male child passenger was injured in a front to rear two vehicle crash by a passenger side air bag in a 1995 Ford Contour. The child sustained head, face, and neck injuries in the crash and was treated at a medical facility and later released. The NHTSA was notified by a physician at the medical facility of the crash. The investigation was joined by two NASS PSU teams.

### **Summary**

A two vehicle front to rear crash involved a 1995 Ford Contour GL (Vehicle #1) equipped with dual front air bags and a 1994 Lincoln Continental (Vehicle #2). The crash occurred on a four lane, urban, straight, undivided, dry, level, asphalt roadway surface which was located 12.2 meters (40 ft.) south of a four leg intersection. There were no adverse weather conditions.

Driver #1 was a 78 year old male who was returning home from the grocery store with his five year old great grandson seated in the right front passenger seat. Driver #2, a 25 year old male, stopped in the southbound travel lane in response to an on-coming approach of a police vehicle which had its lights and siren activated. *grocery store*

Driver #1 saw Vehicle #2 stop and reacted by applying full brakes. Vehicle #1 skidded 12.5 m (41.0') and struck the rear of Vehicle #2 at a SMASH computed impact speed of 38 km/h (24 mph). Both air bags in Vehicle #1 deployed as it underrode the rear bumper of Vehicle #2. The delta V computed by the SMASH program was 15.0 km/h (9.0 mph) for Vehicle #1 and 10.0 km/h (7.0 mph) for Vehicle #2.

Driver #1 was wearing the 3-point lap and shoulder belt and received only a minor abrasion of his right hand from contact with the windshield wiper control arm and instrument panel during the

crash. His left hand contacted the windshield resulting in a spider web crack pattern, but did not sustain any injury from this contact.

The 106.7 cm (42.0") tall five year old male right front occupant in Vehicle #1 was sitting forward on the seat cushion so that his feet were positioned near the floor. He was using the lap portion of the three point manual restraint belt with the torso belt placed behind his back. The seat was adjusted in the rear most track position. During precrash braking, the child moved forward and loaded the lap belt with his abdominal area while his upper body moved toward the instrument panel. The boy's face and neck were in close proximity to the right front air bag module cover at the time of the air bag deployment sequence.

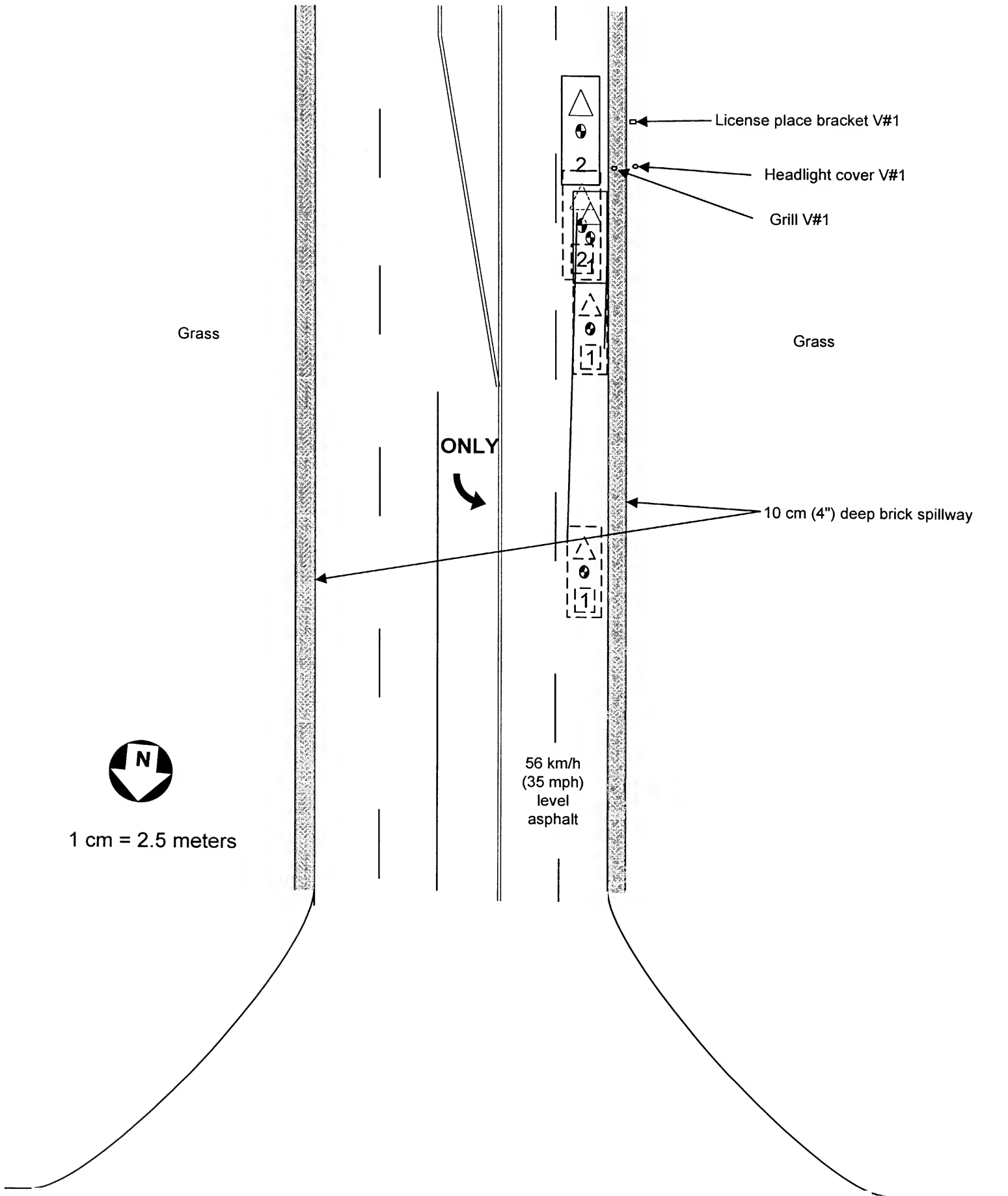
The passenger side air bag module cover was a top mount design which was recessed 14.0 cm (5.5") ) from the leading edge of the instrument panel. The air bag was manufactured with two tethers and a single vent port located along the in-board surface of the air bag.

During the Supplemental Restraint System (SRS) actuation sequence, the deploying passenger side air bag contacted the child's neck and the underside of the chin. The boy was propelled rearward by the expanding air bag and contacted the torso restraint belt and seat back support with his head. Several small black hair fibers were embedded in the torso belt webbing located 45.7 cm (18.0") above the seat cushion which were attributed to contact by the back of the boy's head. He rebounded forward and came to a final rest position slumped forward between the seat and the instrument panel.

The child was transported via ambulance to a pediatric treatment facility where he arrived with a Glasgow Coma Scale of 8-9. He sustained: a closed head injury-concussive syndrome with deficit; abrasion and contusion of the anterior neck; two chipped molars; a laceration of the tongue; contusion of the right ear; and an abrasion of the right side of his face which were attributed to contact with the deploying air bag. He suffered blunt abdominal trauma which was attributed to lap restrained belt loading. The child was admitted and observed for three days before being discharged. He returned to school five days after the crash.

The police responded within five to ten minutes of the crash. The paramedics arrived at the crash scene ten to fifteen minutes after the crash and remained there for only about five minutes before transporting the child to a nearby hospital. The child's mother arrived at the crash scene as he was being placed in the ambulance.

CRASH SCENE SCHEMATIC  
Calspan Case CA96-11



<b>CRASH DEMOGRAPHIC DATA</b>	
Location:	Four lane undivided roadway
City/State:	[REDACTED]
Area/Type:	Urban/Recreational
Crash Date/Time:	[REDACTED] 996, afternoon hour
Investigating Police Agency:	Local Police
Accident type:	Two vehicle front to rear crash
Air Bag Vehicle Passenger Injury Severity:	AIS-3 (Serious)
<b>AMBIENCE</b>	
Viewing Conditions:	Daylight
Weather:	No adverse weather conditions
Road Surface:	Dry
<b>HIGHWAY</b>	
Type:	Local route
Number of Lanes:	4
Roadway Width:	13.9 m (45.6 ft)
Surface:	Asphalt
Median:	None
Edge:	Right edge - 0.9 m (3.0 ft) brick spillway with adjacent grass area Left edge - 1.0 m (3.3 ft) brick spillway with adjacent grass area
Vertical Alignment:	Level
Horizontal Alignment:	Straight/12.2 m (40 ft) south of intersection
Estimated Coefficient of Friction:	0.75
Traffic Density:	Moderate southbound/heavy northbound
<b>TRAFFIC CONTROLS</b>	
Signals:	Traffic light at intersection preceding crash site

Signs:	Posted speed limit sign
Markings:	Solid double yellow centerline, broken white lane divider, solid white road edge lines all good condition
Speed Limit:	56 kph (35 mph)
<b>VEHICLE #1 DESCRIPTION</b>	
Description:	1995 Ford Contour GL, 4 door Sedan
V.I.N.:	1FALP653XSK (serial # omitted)
Color:	Silver
Odometer:	12,529 km (7,787 miles)
Engine:	16 valve, 2.0 liter
Transmission:	Automatic, front wheel drive
Steering:	Power steering
Brakes:	Front power assisted disk brakes with rear drum brakes
Padding:	Upper and mid instrument panel, soft edge steering wheel rim and air bag module cover, door panels, door arm rests, visor, center console
Active Restraints:	3-point lap and shoulder belt systems, inertia activated locking retractors with continuous loop belt webbing through the latch plate, adjustable D-ring upper anchorage
Passive Restraints:	Dual front air bags which deployed as a result of the impact with Vehicle #2
Defects:	None
Tow Status:	Towed due to damage
<b>VEHICLE #2 DESCRIPTION</b>	
Description:	1994 Lincoln Town Car, 4 door sedan
V.I.N.:	1LNCM81F3RY (serial # omitted)
Color:	Blue
Odometer:	72,419 k (45,000 miles)
Engine:	V-8, 4.8 liter

Transmission:	4-speed automatic overdrive, column mounted transmission selector lever
Steering:	Power-assisted
Brakes:	Power-assisted four-wheel disc with four-wheel anti-lock (ABS)
Padding:	Upper and mid instrument panel, knee bolster, glove box door, driver and passenger side air bag module cover flaps, sunvisors, soft-edged steering wheel rim, door panels, door armrests, dual fold-down center armrests, adjustable head restraints
Active Restraints:	3-point lap and shoulder belt systems, inertia activated locking retractors with continuous loop belt webbing through the latch plate, and adjustable D-rings at the front outboard 50/50 split-bench front seated positions, center front lap belt, 3-point lap and shoulder belts in the outboard rear seat positions, and center rear lap belt.
Passive Restraints:	Driver and passenger side air bag Supplemental Restraint System (SRS) which did not deploy as a result of the crash
Defects:	None
Tow Status:	Driven from scene

## VEHICLE #1 DAMAGE

### Exterior:

The frontal plane of the 1995 Ford Contour (Vehicle #1) struck the rear plane of the 1994 Lincoln Town Car (Vehicle #2). The damage profile represented a typical bumper override/underride contact pattern. Vehicle #1 sustained direct contact damage across the left front bumper and hood area. The front bumper sustained a maximum rearward displacement of 3.0 cm (1.2") and the hood area displaced a maximum rearward displacement of 21 cm (8.3"). The upper radiator support panel was displaced rearward a maximum of 10.0 cm (3.9"). Crush values obtained are listed below:

Crush Values	Bumper Crush	Hood Crush	Average Crush
C <sub>1</sub>	3 cm (1.2")	14.0 cm (5.5")	8.5 cm (3.3")
C <sub>2</sub>	2 cm (0.8")	21 cm (8.3")	11 cm (4.5")
C <sub>3</sub>	0	12 cm (4.7")	6 cm (2.4")
C <sub>4</sub>	0	8 cm (3.1")	4 cm (1.6")

Crush Values	Bumper Crush	Hood Crush	Average Crush
C <sub>5</sub>	0	6 cm (2.4")	3.0 cm (1.2")
C <sub>6</sub>	0	0	0

Components damaged in the crash included the front bumper fascia, the grille, the left headlight and directional light assembly, the hood, the left fender, the radiator, and the windshield.

**CDC:** 12-FDEW-1

**Repair Cost:** Not available

#### **Interior:**

Interior damage to the Ford Contour was associated with air bag deployment and occupant contacts. There was no intruded components in the vehicle interior. There was no evidence of occupant contact on either the driver or passenger side air bags.

The windshield exhibited four glazing fractures. The first fracture had a spider web configuration which was attributed to contact by the driver's left hand. This crack was located 16.5 cm (6.5") below the header and 35.6 cm (14.0") left of the vehicle centerline. The second windshield fracture was located 24.8 cm (9.75") right of center and 34.3 cm (13.5") below the header. The pattern of the fracture did not have a focal point normally associated with occupant contact or edge loading by the air bag module cover. This fracture was attributed to loading by the expanding passenger side air bag against the windshield during deployment.

The third windshield fracture had a focal fracture point which resulted from contact by the right bottom corner of the air bag module flap during its upward rotational movement. This fracture was located 44.5 cm (17.5") down from the header and 51.4 cm (20.25") right of center (refer to photographs on pages A-25 thru A-28). The fourth fracture had a similar fracture pattern as the second fracture where there was an absence of a focal loading point. This was located 57.8 cm (22.75") right of the vehicle centerline and 11.4 cm (4.5") below the windshield header and was attributed to contact by the expanding passenger side air bag during its expansion cycle.

A large white color transfer mark was located on the right side of the windshield between the second and third cracks which extended from mid-level to the windshield header. This was attribute to contact by the passenger side air bag which was deflected by the right front occupant during the air bag expansion cycle.

The windshield wiper control arm located on the right side of the steering column was broken as a result of contact by the right hand of the driver during the crash. A transfer mark located on the instrument panel forward of the wiper control arm was associated with the driver's right hand as it continued to move forward in response to impact forces (refer to photograph #43 on page A-22).



The driver's side upper air bag module cover flap exhibited a 1.9 cm (0.75") in diameter abrasion of the vinyl surface which was located at the upper hinge point 6.4 cm (2.5") from the right edge. This was associated with non-crash related contact.

The driver's left hand was displaced from the steering wheel rim by the expanding air bag and contacted the windshield which resulted in a typical spider web fracture pattern. This fracture was located 16.5 cm (6.5") below the header and 35.6 cm (14.0") left of the vehicle centerline.

The right vertical edge of the center console adjacent to the small storage compartment exhibited a disruption of the vinyl surface which was associated with loading by the right front occupant's left leg during the crash sequence. The disruption measured 7.6 cm (3.0") in length and was located 12.7 cm (5.0") right of the vehicle centerline with the lower end of the transfer 29.2 cm (11.5") above the floor (refer to photographs #57, #58 on page A-29). A molded plastic cup holder bracket located on the horizontal aspect of the center console and adjacent to the right front seat cushion was dislodged by the right front passenger during the crash (refer to photograph # 59 on page A-30).

The glove compartment door area exhibited a scuff mark left of the door's latching handle and a light transfer mark on the surface of the latching handle. These marks were attributed to contact by the legs of the right front passenger.

The five year old child passenger was seated in the right front passenger seat with the seat adjusted to the rear most track position. The seat back support was reclined rearward 26 degrees from vertical. The seat cushion had a 15 degree incline. The leading edge of the seat cushion was located 27.9 cm (11.0") vertically from the floor.

The horizontal distance from the leading edge of the right front seat cushion to the vertical plane of the instrument panel was 20.3 cm (8.0"). The distance from the seat back to the instrument panel was 80.0 cm (31.5") measured at 34.3 cm (13.5") above the junction of the seat cushion and seat back support. The leading edge of the passenger side air bag module cover was recessed 14.0 cm (5.5") from the edge of the instrument panel.

The right front passenger's seat belt upper anchor D-ring was adjusted to the lowest position. Several small black hair fibers were embedded in the torso belt. When the belt system was latched into the usage position, the hair fibers were located on the torso belt 45.7 cm (18.0") above the seat cushion on the seat side of the belt. The hair fibers were attributed to contact by the right front occupant's head as the result of being propelled rearward by the expanding passenger side air bag.

The driver's seat was 11.4 cm (4.5") rearward of the full forward position on a seat track which had an adjustment range of 20.3 cm (8.0"). The seat back angle was 21 degrees rearward from vertical. In this position, the seat back measured a horizontal distance of 58.4 cm (23.0") from the air bag module cover which was taken at a height of 47.0 cm (18.5") above the seat cushion junction with the seat back support. The fixed column steering column had a measured angle of 22 degrees from horizontal. The seat belt upper anchor D-ring was adjusted 3.2 cm (1.25") down from the full up position. The vertical adjustment range was 7.6 cm (3.0").

**Vehicle #2:****Exterior**

Vehicle #2 sustained minor exterior damage along the rear plane of the vehicle. Direct contact damage began at the right bumper corner and extended 111.8 cm to the left. The maximum crush of 3.8 cm (1.5") was located at the right rear bumper corner. Crush values obtained at the bumper level are listed below:

Rear Bumper Crush Values		
$C_1 = 0$	$C_3 = 0$	$C_5 = 3.2 \text{ cm (1.25")}$
$C_2 = 0$	$C_4 = 0.6 \text{ cm (0.25")}$	$C_6 = 3.8 \text{ cm (1.5")}$

The rear bumper energy absorption devices (EAD) sustained partial compression of 5.1 cm (2.0") on the right side and 3.8 cm (1.5") on the left side with full restitution of both EADs to a measured value of 6.4 cm (2.5"). Damaged components included: the bumper cover, rear trim panel, and trunk lid alignment. Vehicle #1 was driven from the scene by the Driver #2.

**CDC:** 06-BZEW-1

**Repair Cost:** Not available

**Interior:**

There was minor damage to the interior of the Lincoln Town Car which consisted of a fractured floor bolt for the left front seat. As the driver moved rearward against the seat back support during the impact sequence, the load against the seat back support resulted in the release of the seat anchor point.

The vehicle was equipped with a Supplemental Restraint System (SRS) which did not deploy during the crash.

**SUPPLEMENTAL RESTRAINT SYSTEM (SRS)****Vehicle #1:**

The 1995 Ford Contour was equipped with a Supplemental Restraint System that deployed as designed. Two 3.8 cm x 5.7 cm (1.5" x 2.25") crash sensors were mounted on the leading edge of the upper radiator support bracket. The center of the left crash sensor was located 15.2 cm (6.0") left of the vehicle midpoint and the center of the right crash sensor was 17.8 cm (7.0") right of the vehicle midpoint. The leading edge of the left crash sensor was deformed rearward 1.6 mm (0.06") and the leading edge of the right crash sensor was deformed rearward 6.4 mm (0.25").

### ***Driver Side Air Bag***

The driver's side air bag module cover opened in the typical "H" configuration during the deployment sequence along the designated tear seam lines. The surface measurement of the upper module flap from the opening edge to the top hinge measured 10.8 cm (4.25") and the lateral width was 25.7 cm (10.125"). The lower module flap vertical measurement was 9.5 cm (3.75") and the lateral width was 24.1 cm (9.5"). The vinyl surface was abraded on the upper module flap at the curvature 5.1 cm (2.0") from the top hinge and 6.4 cm (2.5") from the right edge. The abraded area was 1.9 cm (0.75") in diameter (refer to photograph #44 on page A-22).

The driver's side air bag front surface was a coarse woven gray nylon and the rear surface was a fine mesh nylon. The air bag was made with four tethers sewn to the face of the bag with a double row of circular stitching. The diameter of the circular stitching was 17.8 cm (7.0"). Two 1.6 cm (0.6") diameter exhaust vent ports were located in the 11 o'clock/1 o'clock positions on the back side of the air bag located 5.1 cm (2.0") from the outer seam and positioned 8.3 cm (3.25") to the right and left of the centerline. The diameter of the bag was 58.4 cm (23.0"). There was no evidence of occupant contact on the driver's side air bag. The following identification code was located on the left side of the air bag:



### ***Passenger Side Air Bag***

The right front passenger side air bag module was a top mount design which incorporated a single air bag module cover. The cover was flush mount designed to blend with the surrounding top surface of the instrument panel. The module cover measured 35.5 cm (14.0") laterally and 16.5 cm (6.25") longitudinally. The cover flap thickness was 1.0 cm (0.375").

The air bag was constructed with 2 tethers designed to limit the travel of the air bag into the occupant space while providing head and thoracic protection for the occupant. The tethers were attached 54.6 cm (21.5") apart on the right and left sides of the air bag and extended 29.2 cm (11.5") rearward from the leading edge of the instrument panel into the occupant space. The lateral width of the air bag was 54.6 cm (21.5") at mid level and 38.1 cm (15.0") wide at the inflator unit.

The air bag was constructed of a coarse nylon weave fabric which was light gray in color. A single 9.5 cm (3.75") diameter vent port was located on the lower left surface of the air bag. A label was located on the upper right corner of the bag with the following identification:



The passenger side air bag did not exhibit any evidence of occupant contact.

## VEHICLE VELOCITY ESTIMATES

	Vehicle #1	Vehicle #2
Travel Speed:	48 km/h (30 mph) driver estimated travel speed	Stopped
Impact Speed:	35 km/h (22 mph)	0 km/h
Total Delta V:	15 km/h (9 mph)	10 km/h (7 mph)
Longitudinal Delta V:	-15 km/h (-9 mph)	10 km/h (7 mph)
Lateral:	0 km/h	0 km/h
Energy Absorption:	14,013 joules (10,334 ft-lb.)	9,284 joules (6,847 ft-lb.)

The impact speed and velocity changes were computed by the damage and trajectory algorithms of the SMASH program.

## COLLISION SEQUENCE

### Pre-Crash:

The 78 year old driver of the 1995 Ford Contour GL, Vehicle #1, was returning home from the grocery store with his five year old great grandson seated in the right front passenger seat. They were traveling at a driver estimated speed of 40-48 kph (25-30 mph) in a southbound direction on a four lane undivided roadway. The posted speed limit was 56 kph (35 mph). The driver was properly wearing the 3-point lap and shoulder belt with the anchorage adjustment in mid position. The five year old male was wearing the lap belt with the torso belt behind him while sitting forward on the right front seat cushion. The right front passenger D-ring adjustment was in the full down position.

Vehicle #2 was traveling southbound when Driver #2 stopped his vehicle in response to an approaching police vehicle which had its lights and siren activated. Driver #1 reportedly saw Vehicle #2 stop an estimated 304.8 meters (1000.0 ft) ahead of him and applied normal brakes. His foot reportedly slipped off the brake due to some contaminants on the sole of his shoe. He reapplied the brakes in a panic mode and skidded 12.8 meters (42.0 ft) to the point of impact (POI).

### Crash:

Vehicle #1 struck the rear of Vehicle #2 in a bumper underride damage pattern at a SMASH computed impact speed of 35 km/h (22 mph) which resulted in a delta V of 15 km/h (9 mph) for Vehicle #1 and 10 km/h (7 mph) for Vehicle #2. The impact pushed Vehicle #2 forward 3.8 m (12.5') to the final rest position.

Driver #1 occupant moved forward and loaded the manual restraint belt system with his chest and hips. His right hand was dislodged from the steering wheel rim by the deploying driver side air bag and contacted the windshield wiper control lever and instrument panel. His left hand was propelled upward by the expanding air bag and contacted the windshield.

The right front passenger moved forward where his lower torso was restrained by the lap belt and his upper torso moved forward toward the passenger side air bag module cover at the time of the SRS deployment sequence. The leading edge of the deflecting air bag contacted the child's neck area and propelled him rearward against the torso belt and seat back support. He rebounded forward and slumped forward in front of the seat cushion.

Driver #2 moved rearward against the driver seat back support resulting in the fracture of the left front seat anchorage bolt. The driver came to rest in the driver's seat. He was not injured in the crash.

#### **Post Crash:**

**Final Rest** - Both vehicles remained in the travel lane and came to the final rest position (FRP) facing in a southbound direction. Vehicle #2 traveled 3.8 m (12.5') from the POI to the FRP.

**Driver Activities** - Driver #1 released the seat belt of the right front occupant. Driver #2 walked back to Vehicle #1 to survey the damage when he noticed Driver #1 leaning over the right seat area. Driver #2 realizing that there was a problem and returned to his vehicle to retrieve his portable telephone. When he returned, Driver #1 had exited the driver's door and removed the child through the right front door. Driver #2 assisted by taking the boy from Driver #1's arms and placing him on the ground next to the vehicle.

**Rescue Activities** - A passing nurse and an off duty fire fighter arrived shortly after the crash and provided first aid. Driver #2 called "911" for rescue which arrived within ten to fifteen minutes. Paramedics placed the boy on a backboard and transported him via ambulance to a nearby pediatric care facility. The boy's mother who was contacted by Driver #2 arrived on-scene before the arrival of the ambulance.

**Police Activities** -The police arrived at the scene five to ten minutes after the crash.

**Scene Clearance** - Vehicle #1 was towed from the scene to a collision repair facility where an inspection was completed for this report. Vehicle #2 was driven from the scene.

#### **HUMAN FACTORS/OCCUPANT DATA**

<b>Vehicle #1</b>	<b>Driver</b>	<b>Right Front Passenger</b>
Age/Sex:	78 year old male	5 year old male
Height:	176.5 cm (69.5")	106.7 cm (42.0")

<b>Vehicle #1</b>	<b>Driver</b>	<b>Right Front Passenger</b>
Weight:	98.8 kg (218.0 lbs)	17.9 kg (39.5 lbs)
Manual Restraint System Usage:	Wearing the 3-point lap and shoulder belt system	Improperly wearing the 3-point lap belt with shoulder belt behind him
Usage Source:	Driver interview, Police accident report	Driver interview
Eyewear:	Prescription glasses	None
Jewelry:	Unknown	None
Clothing:	Unknown	Unknown
Vehicle Familiarity:	Very familiar, driver's personal car.	
Route Familiarity:	Very familiar, home is on same street as crash scene	
Trip Plan:	Grocery store to home	
Type of Medical Treatment:	None required	Transported to a pediatric hospital, admitted and observed for three days and released

<b>Vehicle #2</b>	<b>Driver</b>
Age/Sex:	25 year old male
Height:	191.8 cm (75.5")
Weight:	129.1 kg (285.0 lbs)
Manual Restraint System Usage:	Not wearing the 3-point lap and shoulder belt system
Usage Source:	Driver interview
Vehicle Familiarity:	Very familiar, driver's personal car.
Route Familiarity:	Daily travel route
Trip Plan:	Returning to residence
Type of Medical Treatment:	None required

## INJURY DATA

### Vehicle #1

The boy was placed on a backboard and transported via ambulance to a pediatric medical treatment facility where he arrived with a Glasgow Coma Scale of 8-9. He was crying, but was not responding to verbal commands. CT scans were performed on the child's head, neck, and abdominal area with no lesions detected. The boy was admitted and observed for three days before being discharged with head trauma and blunt abdominal trauma. He returned to school five days after the crash.

DRIVER INJURIES	AIS-90 INJURY SEVERITY	SOURCE
1. Abrasion of right hand	790202.11	Windshield wiper control lever

RIGHT FRONT PASSENGER INJURIES	AIS-90 INJURY SEVERITY	SOURCE
1. Closed head injury-Concussive syndrome with deficit	160604.30	Passenger side air bag
2. Small tongue laceration	243402.18	Passenger side air bag
3. Abrasion anterior neck	390202.11	Passenger side air bag
4. Contusion neck	390402.11	Passenger side air bag
5. Chipped molar (2)	251402.18	Passenger side air bag
6. Contusion right ear	290402.11	Passenger side air bag
7. Blunt abdominal trauma	515099.70	Lap restraint belt

Driver #2 was not injured in the crash and was subsequently was not treated.

## OCCUPANT KINEMATICS

### Vehicle #1

#### *Right Front Occupant*

The five year old child passenger was seated in the right front passenger seat with the seat track adjusted to the rear most track position. The manual adjustment range of the seat track was 72.4 cm (8.5"). The seat back support was reclined rearward 26 degrees from vertical and the seat cushion had an incline of 15 degrees.

The five year old child was wearing the manual lap belt with the torso belt placed against the seat back. The usage of the belt system was determined from the type of injuries suffered by the child which included unspecified blunt abdominal trauma attributed to the lap belt, the absence of extreme patterned soft tissue injuries of the neck region normally associated with contact by the air bag module cover, and black hair fibers from the child's head embedded in the torso restraint belt which occurred from being propelled rearward by the expanding air bag.

Prior to the crash, the 106.7 cm (42.0") tall boy was seated forward on the seat cushion so that his feet were in contact with the floor pan in front of his seat. In this position, the lap belt was spooled out and placed across his abdominal area and the torso belt was behind his back.

During pre-impact braking, the child's hips moved forward against the lap restraint belt while his legs flexed at the knees and extended forward. The boy's upper torso continued forward and was approaching the instrument panel with his head positioned slightly to the left when the passenger side air bag began its expansion.

The passenger side air bag contacted the anterior aspect of the child's neck resulting in a contusion and abrasion. As the air bag expanded to its fully inflated state, the air bag forced the child's lower jaw upward against the upper jaw resulting in two chipped molars, a laceration of the tongue, and abrasions of the chin and right side of the face. The child's torso was propelled rearward and contacted the torso belt and seat back support with the posterior aspect of his head. Black hair fibers were embedded in the belt webbing in a location which was consistent with the placement of the torso belt with respect to the spooled out lap belt.

During the child's rearward trajectory, his left leg and hip moved laterally to the left and contacted the center console. This was noted by the focal compressive disruption of the vinyl surface located along the vertical surface of the console and by the dislocation of the vinyl trim panel surrounding the retracted cup holder on the horizontal plane of the console.

The child rebounded from the seat back support and was slumped over with his head toward the floor. Driver #1 reached over and released the child's restraint belt which allowed the child to move forward between the seat and the instrument panel.

### ***Driver #1***

The 78 year old male driver of the 1995 Ford Contour was driving with the seat adjusted 11.4 cm (4.5") rearward from the forward most adjustment position over a seat track adjustment range of 20.3 cm (8.0"). The seat back support measured 21 degrees rearward from vertical and was located a horizontal distance of 58.4 cm (23.0") from the air bag module at a height of 47.0 cm (18.5") above the seat cushion. The fixed steering column measured 22 degrees above a horizontal plane.

Driver #1 observed Vehicle #2 stop in the traffic lane at an estimated distance of 304.8 meters (1000.0 ft) ahead of him. He reportedly applied the brakes in a normal braking action when his foot



slipped off the brake pedal due to some contaminants on the sole of his shoe. He reapplied the brakes in a panic mode which resulted in the vehicle skidding 12.8 meters (42.0 ft) to the POI.

Driver #1 moved forward and loaded the lap and torso belt. His right hand disengaged from the steering wheel rim and was accelerated forward by the deploying driver side air bag and contacted the windshield wiper control arm resulting in an abrasion. It continued forward and contacted the instrument panel which was apparent from the transfer mark on the vertical surface just behind the control arm. The driver's left hand was accelerated upward by the expanding air bag and contacted the windshield which resulted in a typical spider web fracture pattern in the glazing.

The driver came to rest in the driver's seat. He disengaged his restraint belt and then attended to the right front occupant. Driver #1 exited the vehicle through the left front door under his own power and walked around to the right front door and removed the right front occupant.

## **Vehicle #2**

### ***Driver #2***

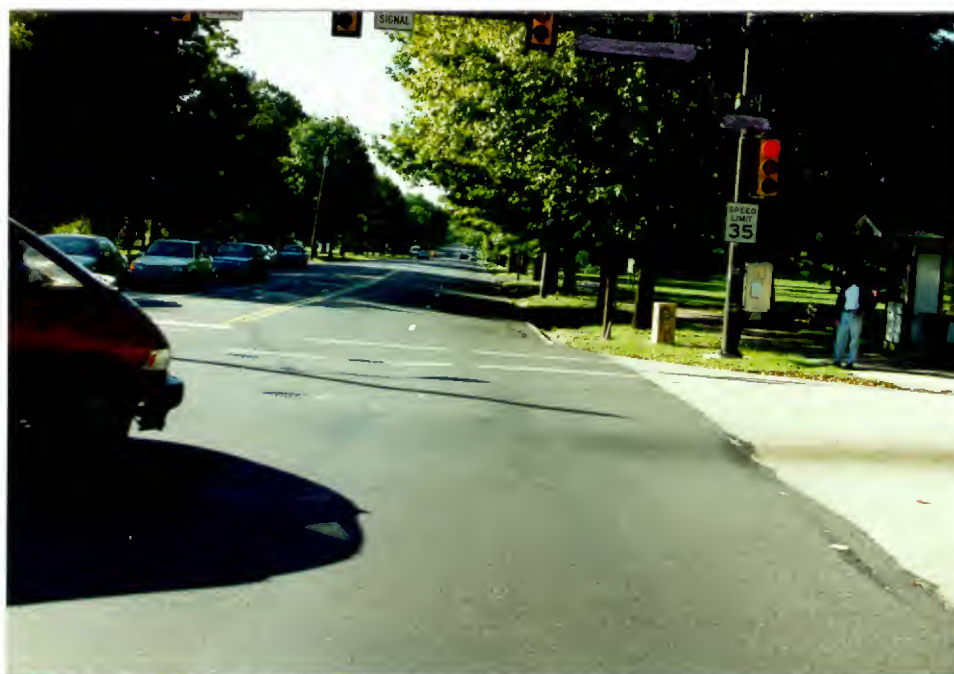
Driver #2 was stopped in traffic while waiting for an on-coming emergency vehicle to clear the area. He was unaware of Vehicle #1's approach from behind. During the impact sequence, Driver #2 moved rearward against the seat back support. This interaction loaded the seat structure which resulted in the release of the left front seat anchorage point with the floor pan and allowed the seat to move slightly rearward. The driver rebounded forward and was held in the seat by the lap and shoulder restraint belt. He was not injured in the crash.

**ATTACHMENT A**

**Prints**



1. Overall view of the southbound pre-crash trajectory.



2. View of the pre-crash trajectory from the four-leg intersection.



3. View of the pre-crash trajectory at the south edge of the four-leg intersection.



4. Pre-crash trajectory - 30 meters (98 ft.) prior to the point of impact (POI).





5. Pre-crash trajectory -15 meters (49 ft.) from POI.



6. View showing the start of the left front skid mark prior to impact.



7. View showing the start of the right front skid mark prior to impact.



8. Close-up view of the start of the right front skid mark.





9. View of the point of impact.



10. Close-up view of the POI and the end of the left front skid mark.



11. Debris separated from Vehicle #1 in the vicinity of the final rest position (FRP).



12. Lookback view of the final rest position of Vehicle #2





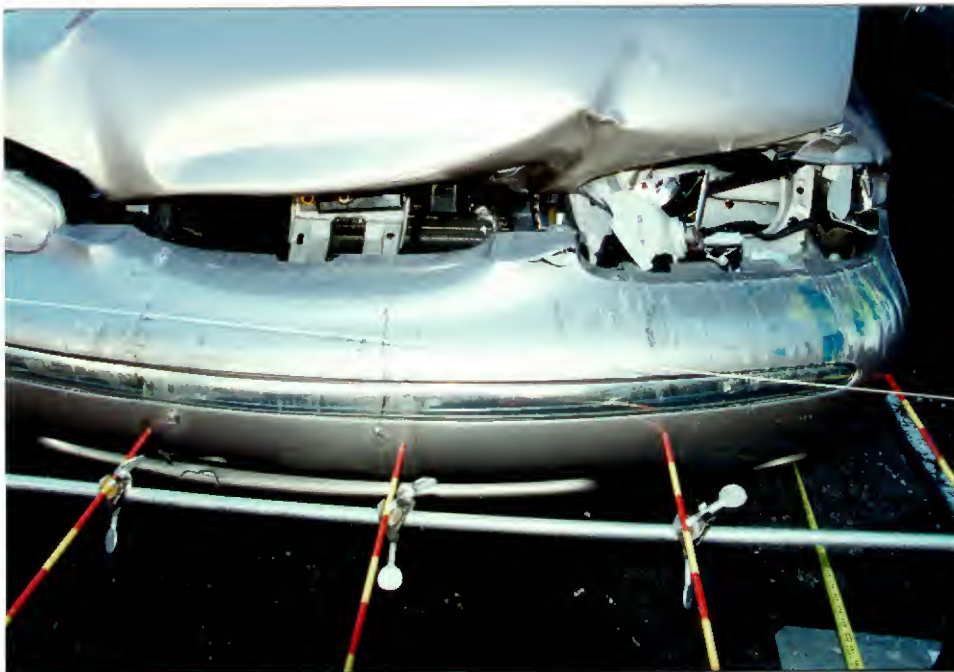
13. Lookback view of the FRP of Vehicle #1.



14. Lookback view of the pre-crash trajectory from POI.

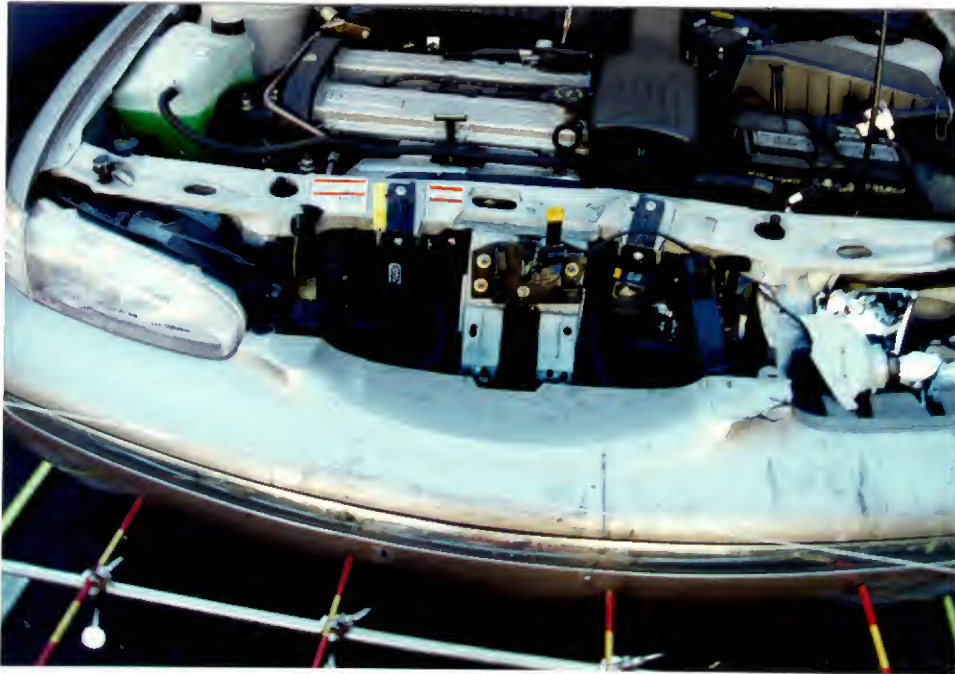


15. Overall view of the frontal plane of the 1995 Ford Contour GL (Vehicle #1).

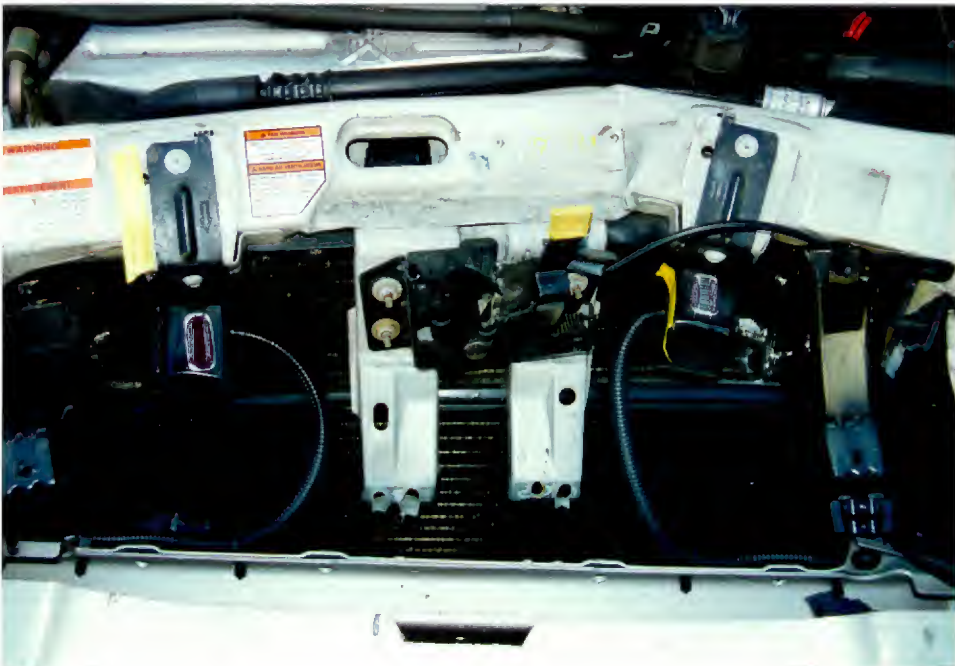


16. View of the direct contact damage to the center and left frontal plane.

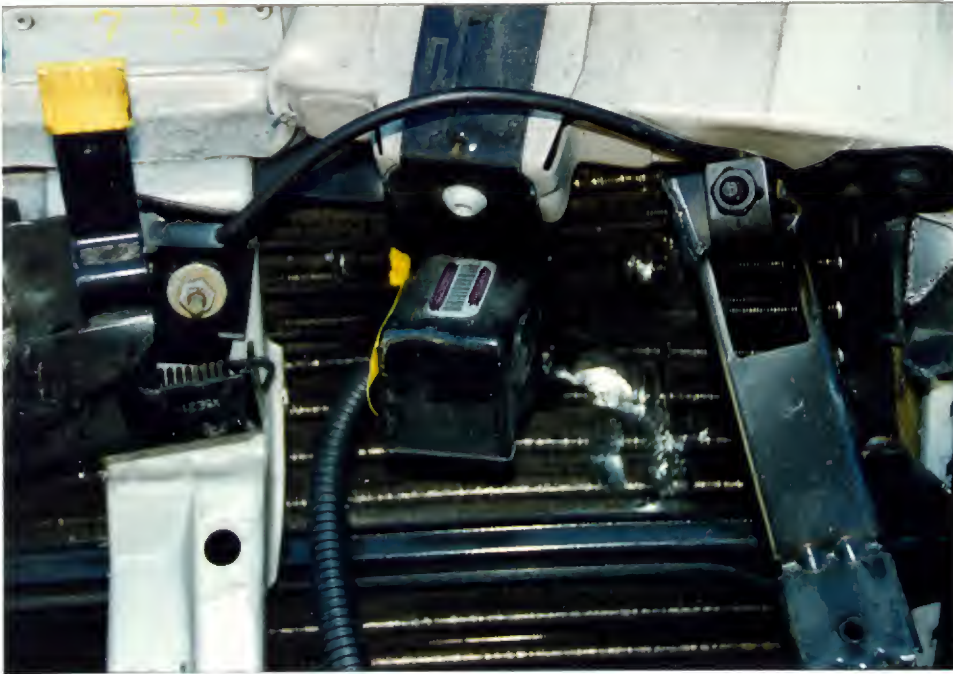




17. View of the damage to the upper radiator support bracket and crash sensors located on the upper radiator support bracket.



18. Close-up view of the crash sensors.

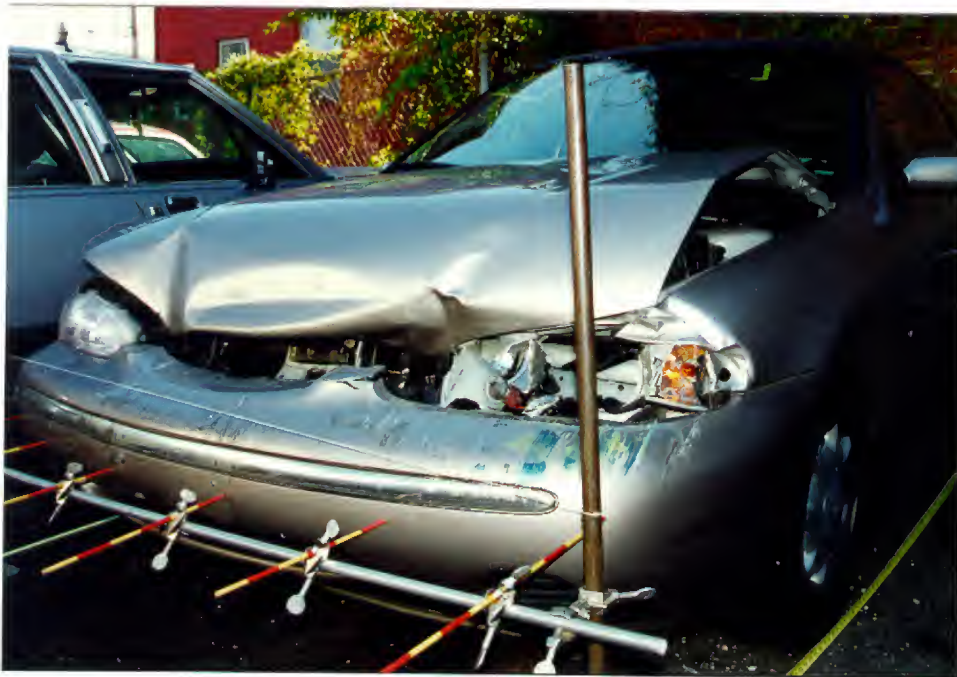


19. Close-up view of the damage to the left crash sensor.



20. Close-up view of the damage to the right crash sensor.



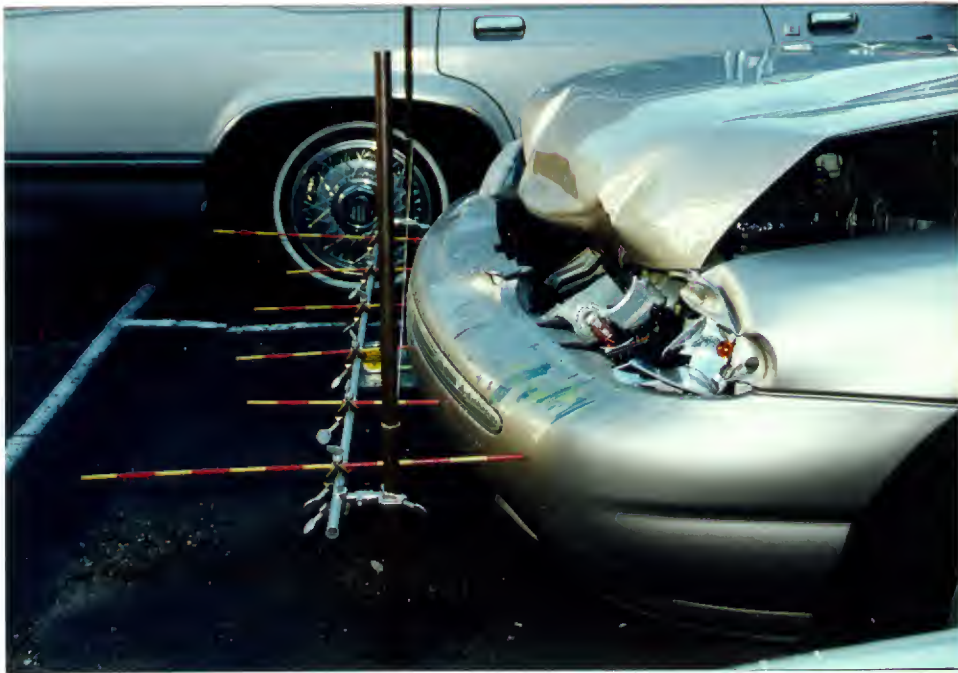
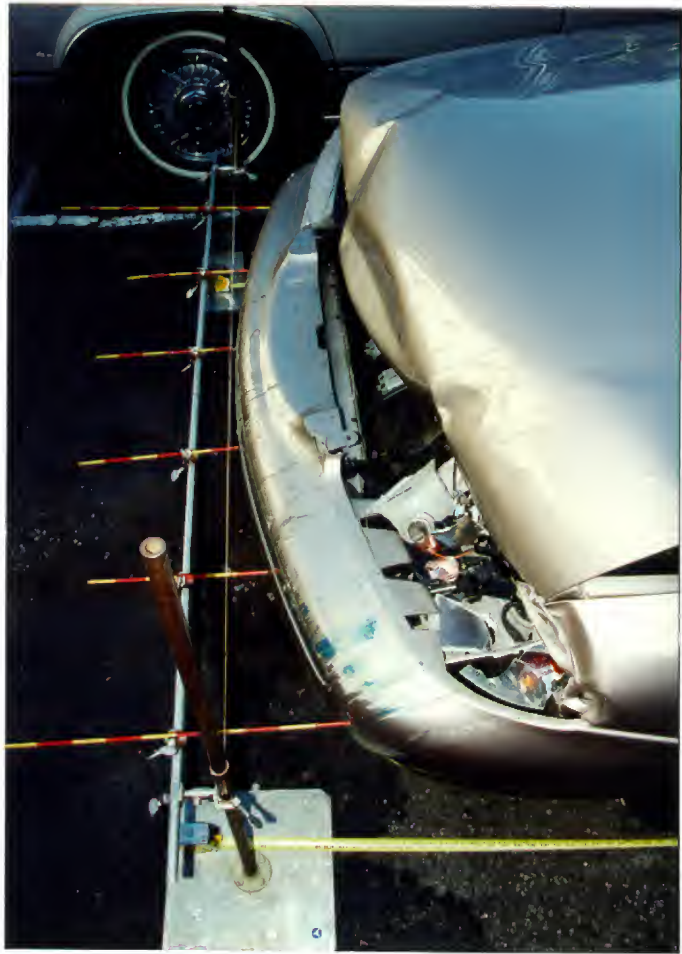


21. Left front corner view.



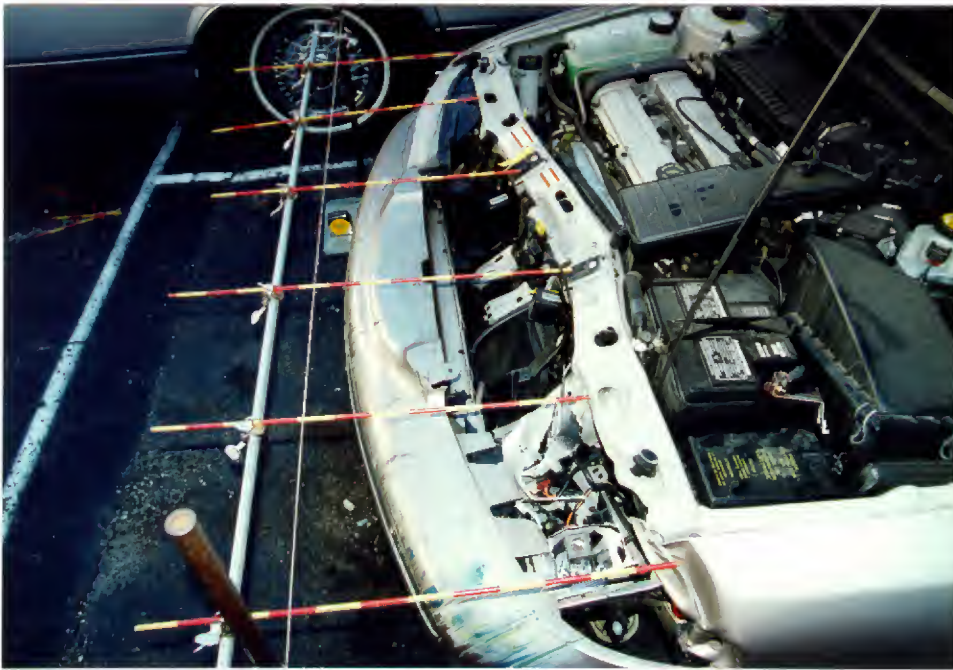
22. View of the left side plane.

23. Overhead view of the frontal plane showing rearward deformation.



24. Lateral view showing rearward displacement of the front bumper, grille, and hood.





25. Lateral view showing rearward displacement of the upper radiator support bracket.



26. Left rear corner view showing no damage.



27. Right rear corner view showing no damage.



28. Lateral view from the right side showing rearward displacement of the front bumper, grille, and hood.





29. Overall view of Vehicle #1's windshield.



30. View of the passenger's side windshield showing contact evidence.



31. Close-up view of the contact evidence on the windshield.



32. View of the windshield contact damage with respect to the air bag module cover.



33. View of the driver's side windshield damage.



34. Close-up view of the windshield damage.





35. Angular view of the driver's side instrument panel.



36. Lateral view of Vehicle #1's interior taken from the left side of the vehicle.



37. Lateral view of the steering wheel rim showing no deformation.



38. Vertical view of the left front instrument panel showing windshield damage and the driver side air bag.



39. Similar view as photograph #38, but with the air bag placed back into the air bag module.



40. Air bag warning label on the left sunvisor.



41. Driver side air bag warning label on roof side surface of sunvisor



42. Close-up view of the windshield damage on the driver's side.



43. Deformation of the wiper control arm located on the right side of the steering column.



44. View of the upper flap of the driver side air bag module cover.





45. Vertical view of the center instrument panel.



46. Vertical view of the passenger's side with the air bag placed back in the air bag module.

47. Vertical view of the passenger side air bag held in an extended position.



48. Passenger side air bag warning label on the right front sunvisor.



49. Passenger side air bag warning label on roof side surface of sunvisor.



50. Overall view of the passenger side windshield.





51. Close-up view of the contact damage on the windshield surface including air bag transfer marks.



52. View of a scuff mark on the right A-pillar.



53. View of the underside of the module cover flap.



54. Air bag module cover flap contact on windshield.





55. Lateral view of the air bag module cover flap.



56. Vertical view of contact evidence on the center instrument panel.



57. Close-up view of contact mark on center instrument panel.



58. Close-up view of the contact marks on the center instrument panel and glove compartment.



59. View of the dislodged cup holder bracket.



60. Occupant contact marks on glove compartment door.





61. View of the passenger side air bag's leading surface.



62. Lateral view of the expanded passenger side air bag relative to the right front passenger seat.



63. Identification label on passenger side air bag.



64. Overhead view of the right front seat showing an arbitrary placement of the lap belt in an extended position.

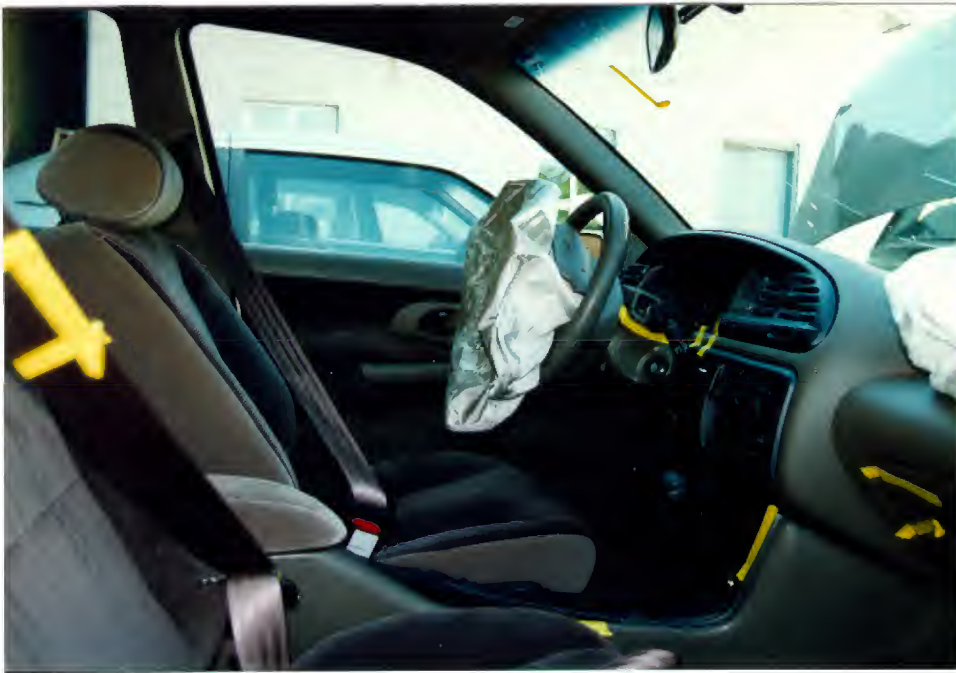


65. View of the right front passenger side D-ring which was observed in the lowest adjustment position.



66. Angular view of the instrument panel.





67. Lateral view from the right side of the driver's seat.



68. Vertical view of the right front passenger's torso belt.

69. View of black hair fibers on the surface of the right front passenger's torso belt.



70. Belt folded for lateral view of hair fibers located at the 55 inch mark.





71. Lateral view of the rear seat from the right side.



72. Overall view of the frontal plane of the 1994 Lincoln Town Car (Vehicle #2).

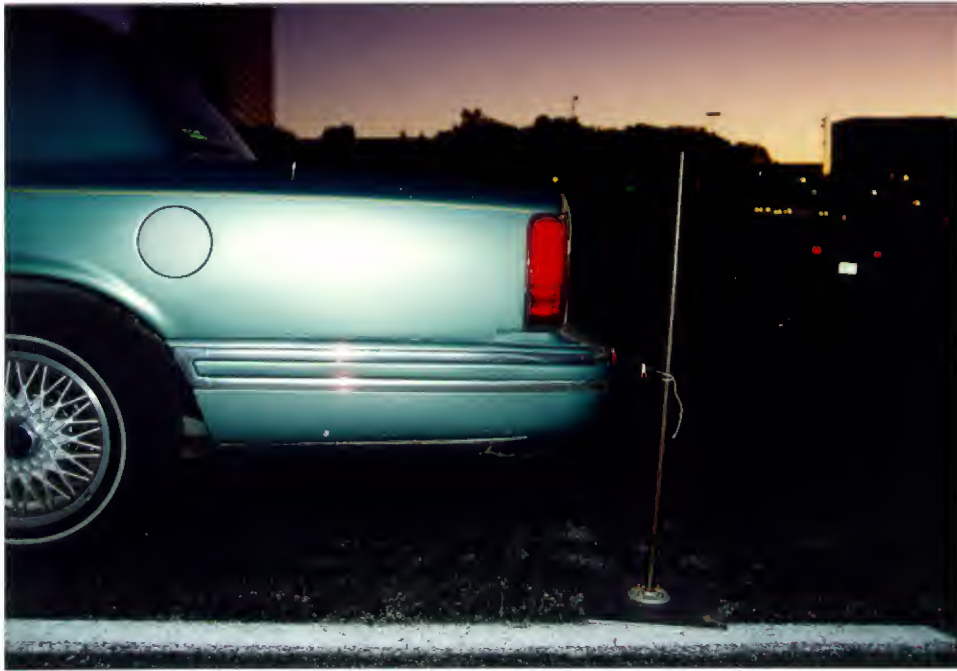


73. Right front corner view.



74. Left side view.





75. Lateral view of the left rear side plane showing no deformation.



76. Overhead view of the rear bumper.



77. Rear view of Vehicle #2 showing minimal damage to the bumper area.



78. Right rear corner view.



79. Right side view.



80. Lateral view of the right rear side plane.





81. Close-up lateral view of the right rear side plane.



82. Overhead view of the deformation of the rear bumper.



83. Right front corner view.



84. Lateral view of Vehicle #2's interior taken from the left side of the vehicle.



85. View of the driver's seat back support.

86. Driver's side D-ring adjustment position.



## **“GRAPHIC” PHOTOGRAPHS AND IMAGES**

The following “GRAPHIC” Photographs and Images have been removed from this case.

PHOTO'S # 87, 88 & 89

If you would like a copy of these photographs and/or images please write to:

MARJORIE SACCOCCIO  
VOLPE NATIONAL TRANSPORTATION SYSTEMS CENTER  
55 BROADWAY  
CAMBRIDGE, MA 02142

In the body of your request please include the case, photograph and image number(s).



## Appendix B

### SMASH Algorithm

# Summary of Results Using Damage

Page 1

SCI CA96-11

Speed Change  
(Damage)

Impact Speed  
(Damage and  
Spinout)

## Vehicle #1

Total	15 km/h ( 9 mph)	35 km/h ( 22 mph)
Longitudinal	-15 km/h ( -9 mph)	35 km/h ( 22 mph)
Latitudinal	0 km/h ( 0 mph)	0 km/h ( 0 mph)
PDOF Angle	0 ½	
Energy Dissipated	= 14013 Joules ( 10334 Ft-Lb)	
Barrier Equivalent Speed	= 15.5 km/h ( 9.7 mph)	
Calculated using crush coefficients entered by the user.		

## Vehicle #2

Total	10 km/h ( 7 mph)	0 km/h ( 0 mph)
Longitudinal	10 km/h ( 7 mph)	0 km/h ( 0 mph)
Latitudinal	0 km/h ( 0 mph)	0 km/h ( 0 mph)
PDOF Angle	-180 ½	
Energy Dissipated	= 9284 Joules ( 6847 Ft-Lb)	
Barrier Equivalent Speed	= 9.9 km/h ( 6.2 mph)	
Calculated using crush coefficients entered by the user.		

## Separation Results

Separation (Using Spinout)

us  
vs  
psisd

Vehicle #1  
áááááááááááá

20 km/h ( 13 mph)  
0 km/h ( 0 mph)  
0 deg/sec

Vehicle #2  
áááááááááááá

11 km/h ( 7 mph)  
0 km/h ( 0 mph)  
0 deg/sec

## General Information

	Vehicle #1 áááááááááá	Vehicle #2 áááááááááá
Year	1995	1994
Make	Ford	Lincoln
Model	Contour	Town Car
CDC	12FDEW1	06BZEW1
Side Damaged	F	B
PDOF Angle	0 ½	180 ½
Heading Angle	0 ½	0 ½

Calculation method: Vehicle's Crush Coeff.

Vehicle's Crush Coeff.

d0 crush coeff.

99.19 sqrt(N)

99.91 sqrt(N)

d1 crush coeff.

6.47 sqrt(N)/cm

4.51 sqrt(N)/cm

## Damage Information

	Vehicle #1 áááááááááá Yes	Vehicle #2 áááááááááá Yes
Vehicle Damage Known		
Crush Length	147.0 cm ( 58 in)	167.6 cm ( 66 in)
C1	8.5 cm ( 3 in)	0.0 cm ( 0 in)
C2	11.5 cm ( 5 in)	0.0 cm ( 0 in)
C3	6.0 cm ( 2 in)	0.0 cm ( 0 in)
C4	4.0 cm ( 2 in)	0.6 cm ( 0 in)
C5	3.0 cm ( 1 in)	3.2 cm ( 1 in)
C6	0.0 cm ( 0 in)	3.8 cm ( 1 in)
D	-18.3 cm ( -7 in)	27.9 cm ( 11 in)
D'	-41.8 cm ( -16 in)	82.1 cm ( 32 in)

## Scene Information

Vehicle #1  
 áááááááááá

Vehicle #2  
 áááááááááá

## Impact

x position	3.0 m ( 9.8 ft)	8.2 m ( 26.9 ft)
y position	4.5 m ( 14.8 ft)	4.0 m ( 13.1 ft)
heading angle	0 ½	0 ½

## Rest

x position	8.1 m ( 26.6 ft)	12.0 m ( 39.4 ft)
y position	4.5 m ( 14.8 ft)	4.0 m ( 13.1 ft)
heading angle	0 ½	0 ½

## Side-Slip Angle

0 ½

0 ½

## Motion Information

Vehicle #1  
 áááááááááá

Vehicle #2  
 áááááááááá

Did Vehicle Rotate?

No

No

Did Rotation Stop?

Yes

Yes

End of Rotation x position

3.0 m ( 9.8 ft)

8.2 m ( 26.9 ft)

End of Rotation y position

4.5 m ( 14.8 ft)

4.0 m ( 13.1 ft)

End of Rotation angle

0.0 ½

0.0 ½

Curved Path?

No

No

Curved Path x position

0.0 m ( 0.0 ft)

0.0 m ( 0.0 ft)

Curved Path y position

0.0 m ( 0.0 ft)

0.0 m ( 0.0 ft)

Direction of Rotation

None

None

Amount of Rotation

&lt; 360 ½

&lt; 360 ½

Was There Sustained Contact Between the Vehicles? No



## Friction Information

	Vehicle #1 ááááááááááá	Vehicle #2 ááááááááááá
Rolling Resistance		
Left Front Wheel	1.00	0.27
Right Front Wheel	1.00	0.27
Left Rear Wheel	0.01	0.01
Right Rear Wheel	0.01	0.01
Coefficient of Friction = 0.75		

## Vehicle Dimensions

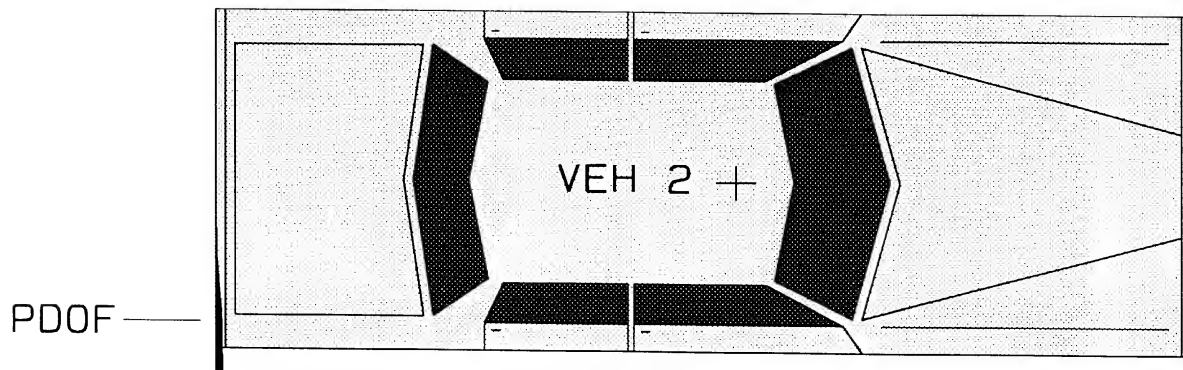
	Vehicle #1 áááááááááááá	Vehicle #2 áááááááááááá
Length	467.2 cm ( 184 in)	556.1 cm ( 219 in)
Width	175.5 cm ( 69 in)	195.5 cm ( 77 in)
Wheelbase	270.4 cm ( 106 in)	298.2 cm ( 117 in)
Weight	1373 kgs ( 3027 lbs)	1961 kgs ( 4323 lbs)
CG to Front of Veh	228.1 cm ( 90 in)	251.0 cm ( 99 in)
Engine Displacement	2.0 liters	4.6 liters
Moment of Inertia	270908 kgs ( 23979 lbs)	547678 kgs ( 48476 lbs)
Vehicle Mass	1373 kgs ( 7.9 lb-s <sup>2</sup> /in)	1961 kgs ( 11.2 lb-s <sup>2</sup> /in)

## Trajectory Simulation Results

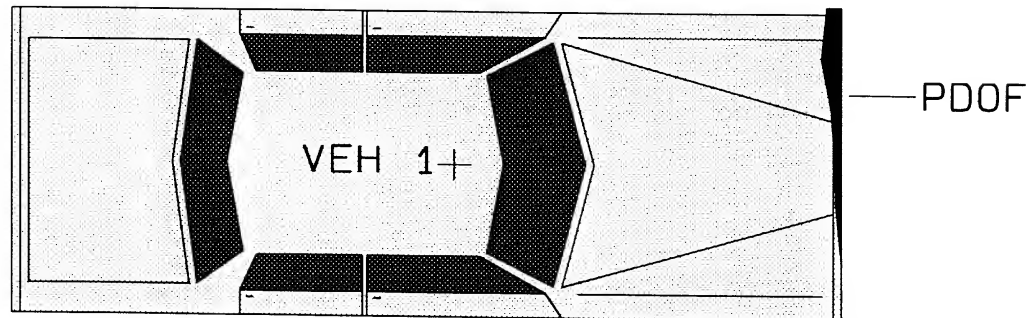
Simulation Time: 0.000 seconds      Integration Step = 0.000 seconds

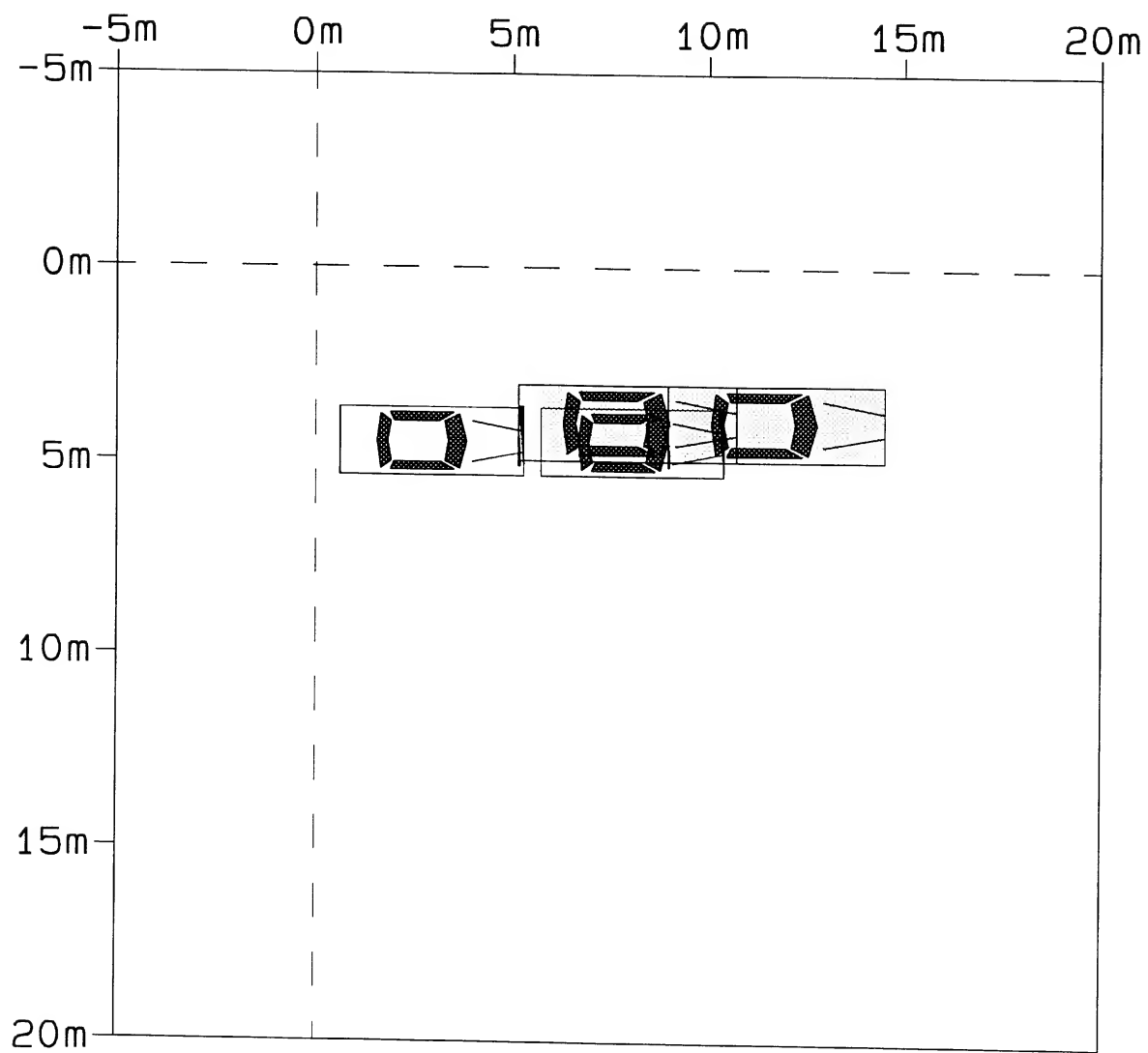
	Vehicle #1 áááááááááááá	Vehicle #2 áááááááááááá
No. of Iterations	0	0
Best Iteration	0	0
Error	0.000	0.000
Predicted Rest Positions		
x	0.0 m ( 0.0 ft)	0.0 m ( 0.0 ft)
y	0.0 m ( 0.0 ft)	0.0 m ( 0.0 ft)
angle	0.0 ½	0.0 ½
Scene Rest Positions		
x	8.1 m ( 26.6 ft)	12.0 m ( 39.4 ft)
y	4.5 m ( 14.8 ft)	4.0 m ( 13.1 ft)
angle	0.0 ½	0.0 ½
Residual Velocity		
Linear	0 km/h ( 0 mph)	0 km/h ( 0 mph)
Angular	0.00 deg/sec	0.00 deg/sec

1994 Lincoln Town Car



1995 Ford Contour









# GENERAL VEHICLE FORM

1. Primary Sampling Unit Number         
2. Case Number - Stratum CA 96-11  
3. Vehicle Number 01

## VEHICLE IDENTIFICATION

4. Vehicle Model Year 95  
Code the last two digits of the model year  
(99) Unknown
5. Vehicle Make (specify): Ford  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown
6. Vehicle Model (specify): 035  
Contour GL  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown
7. Body Type 04  
Note: Applicable codes may be found on  
the back of this page.
8. Vehicle Identification Number  
1FALP653XS K (Serial # omitted)  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nines
9. Vehicle Special Use (This Trip) 0  
(0) No special use  
(1) Taxi  
(2) Vehicle used as school bus  
(3) Vehicle used as other bus  
(4) Military  
(5) Police  
(6) Ambulance  
(7) Fire truck or car  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

## OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 1  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown
11. Police Reported Travel Speed 999  
Code to the nearest kmph (NOTE: 000 means  
less than 0.5 kmph)  
(160) 159.5 kmph and above  
(999) Unknown  
  
\_\_\_\_ mph X 1.6093 = \_\_\_\_ kmph

12. Speed Limit 056  
(000) No statutory limit  
Code posted or statutory speed limit in kmph  
(999) Unknown  
  
\_\_\_\_ mph X 1.6093 = \_\_\_\_ kmph
13. Police Reported Alcohol Presence For Driver 7  
(0) No alcohol present  
(1) Yes alcohol present  
(7) Not reported  
(8) No driver present  
(9) Unknown
14. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown  
  
Source: \_\_\_\_\_
15. Police Reported Other Drug Presence For Driver 7  
(0) No other drug(s) present  
(1) Yes other drug(s) present  
(7) Not reported  
(8) No driver present  
(9) Unknown
16. Other Drug Specimen Test Result For Driver 0  
(0) No specimen test given  
(1) Drug(s) not found in specimen  
(2) Drug(s) found in specimen, (specify): \_\_\_\_\_  
(3) Specimen test given, results unknown or not  
obtained  
(8) No driver present  
(9) Unknown if specimen test given
17. Driver's Zip Code [REDACTED]  
(00001) Driver not a resident of U.S. or territories  
  
\_\_\_\_ Code actual 5-digit zip code  
(99998) No driver present  
(99999) Unknown
18. Driver's Race/Ethnic Origin 2  
(1) White (non-Hispanic)  
(2) Black (non-Hispanic)  
(3) White (Hispanic)  
(4) Black (Hispanic)  
(5) American Indian, Eskimo or Aleut  
(6) Asian or Pacific Islander  
(7) Other (specify): \_\_\_\_\_  
(8) No driver present  
(9) Unknown

**PRECRASH ENVIRONMENTAL DATA****19. Relation To Interchange Or Junction** 0

- (0) Non-interchange area and non-junction  
 (1) Interchange area related

*Non-Interchange junctions*

- (2) Intersection related  
 (3) Driveway, alley access related  
 (4) Other junction (specify) \_\_\_\_\_

(5) Unknown type of junction

(9) Unknown

**20. Trafficway Flow** 0

- (0) Not physically divided (two way traffic)  
 (1) Divided trafficway-median strip without positive barrier  
 (2) Divided trafficway-median strip with positive barrier  
 (3) One way traffic  
 (9) Unknown

**21. Number Of Travel Lanes** 4

- (1) One  
 (2) Two  
 (3) Three  
 (4) Four  
 (5) Five  
 (6) Six  
 (7) Seven or more  
 (9) Unknown

**22. Roadway Alignment** 1

- (1) Straight  
 (2) Curve right  
 (3) Curve left  
 (9) Unknown

**23. Roadway Profile** 1

- (1) Level  
 (2) Uphill grade (> 2%)  
 (3) Hill crest  
 (4) Downhill grade (> 2%)  
 (5) Sag  
 (9) Unknown

**24. Roadway Surface Type** 2

- (1) Concrete  
 (2) Bituminous (asphalt)  
 (3) Brick or block  
 (4) Slag, gravel, or stone  
 (5) Dirt  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

**25. Roadway Surface Condition** 1

- (1) Dry  
 (2) Wet  
 (3) Snow or slush  
 (4) Ice  
 (5) Sand, dirt, or oil  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

**26. Light Conditions** 1

- (1) Daylight  
 (2) Dark  
 (3) Dark, but lighted  
 (4) Dawn  
 (5) Dusk  
 (9) Unknown

**27. Atmospheric Conditions** 0

- (0) No adverse atmospheric-related driving conditions  
 (1) Rain  
 (2) Sleet/hail  
 (3) Snow  
 (4) Fog  
 (5) Rain and fog  
 (6) Sleet and fog  
 (7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): \_\_\_\_\_  
 (9) Unknown

**28. Traffic Control Device** 0

- (0) No traffic control(s)  
 (1) Traffic control signal (not RR crossing)

*Regulatory*

- (2) Stop sign  
 (3) Yield sign  
 (4) School zone sign  
 (5) Other regulatory sign (specify): \_\_\_\_\_

(6) Warning sign (not RR crossing)

(7) Unknown sign

(8) Miscellaneous/other controls including RR controls (specify): \_\_\_\_\_

(9) Unknown

**29. Traffic Control Device Functioning** 0

- (0) No traffic control device  
 (1) Traffic control device not functioning (specify): \_\_\_\_\_  
 (2) Traffic control device functioning properly  
 (9) Unknown

**PRECRASH DRIVER RELATED DATA**

30. Driver's Distraction/Inattention To Driving (Prior To Recognition Of Critical Event) 01
- (00) No driver present
- (01) Attentive or not distracted
- (02) Looked but did not see
- Distractions*
- (03) By other occupant(s), (specify): \_\_\_\_\_
- (04) By moving object in vehicle (specify): \_\_\_\_\_
- (05) While talking or listening to cellular phone (specify location and type of phone): \_\_\_\_\_
- (06) While dialing cellular phone (specify location and type of phone): \_\_\_\_\_
- (07) While adjusting climate controls
- (08) While adjusting radio, cassette, CD (specify): \_\_\_\_\_
- (09) While using other device/controls integral to vehicle (specify): \_\_\_\_\_
- (10) While using or reaching for device/object brought into vehicle (specify): \_\_\_\_\_
- (11) Sleepy or fell asleep
- (12) Distracted by outside person, object, or event (specify): \_\_\_\_\_
- (13) Eating or drinking
- (14) Smoking related
- (97) Distracted/inattentive, details unknown
- (98) Other, distraction (specify): \_\_\_\_\_
- (99) Unknown

31. Pre-Event Movement (Prior to Recognition of Critical Event) 01
- (00) No driver present
- (01) Going straight
- (02) Decelerating in traffic lane
- (03) Accelerating in traffic lane
- (04) Starting in traffic lane
- (05) Stopped in traffic lane
- (06) Passing or overtaking another vehicle
- (07) Disabled or parked in travel lane
- (08) Leaving a parking position
- (09) Entering a parking position
- (10) Turning right
- (11) Turning left
- (12) Making a U-turn
- (13) Backing up (other than for parking position)
- (14) Negotiating a curve
- (15) Changing lanes
- (16) Merging
- (17) Successful avoidance maneuver to a previous critical event
- (97) Other (specify): \_\_\_\_\_
- (99) Unknown

32. Critical Precrash Event 08
- THIS VEHICLE LOSS OF CONTROL DUE TO:**
- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): Foot slipped off brake pedal
- (09) Unknown cause of control loss

**THIS VEHICLE TRAVELLING**

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (18) This vehicle decelerating
- (19) Unknown travel direction

**OTHER MOTOR VEHICLE IN LANE**

- (50) Other vehicle stopped
- (51) Traveling in same direction with lower steady speed
- (52) Traveling in same direction while decelerating
- (53) Traveling in same direction with higher speed
- (54) Traveling in opposite direction
- (55) In crossover
- (56) Backing
- (59) Unknown travel direction of other motor vehicle in lane

**OTHER MOTOR VEHICLE ENCROACHING INTO LANE**

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

**PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST**

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

**OBJECT OR ANIMAL**

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

33. Attempted Avoidance Maneuver 03

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify): \_\_\_\_\_

(99) Unknown

34. Pre-Impact Stability 2

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_

(9) Precrash stability unknown

35. Pre-Impact Location 1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type 20

(Note: Applicable codes on back of this page)

## (00) No impact

Code the number of the diagram that best describes the accident circumstance

## (98) Other accident type (specify): \_\_\_\_\_

(99) Unknown

**STOP HERE IF GV07 DOES NOT EQUAL 01 - 49**



**OCCUPANT RELATED**

37. Driver Presence in Vehicle 1  
 (0) Driver not present  
 (1) Driver present  
 (9) Unknown
38. Number of Occupants This Vehicle 02  
 (00-96) Code actual number of occupants for this vehicle  
 (97) 97 or more  
 (99) Unknown
39. Number of Occupant Forms Submitted 02

**AIR BAG RELATED**

40. Is this an AOPS Vehicle? 1  
 (0) No (includes unknown)  
 (1) Yes - researcher determined  
 (2) VIN determined air bag system  
 (3) VIN determined automatic (passive) belts  
 (4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 6  
 (0) Not equipped or not available  
 (1) No air bags deployed  
*Single Air Bag Vehicle*  
 (2) Driver air bag deployed  
 (3) Driver air bag, unknown if deployed  
*Multiple Air Bag Vehicle*  
 (4) Driver side only deployed  
 (5) Passenger side only deployed  
 (6) Driver and passenger side deployed  
 (7) Driver and passenger side unknown if deployed  
 (8) Air bag(s) deployed, details unknown  
 (9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 1  
 (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

Specify type of "other" air bag present: \_\_\_\_\_

**VEHICLE WEIGHT ITEMS**

43. Vehicle Curb Weight 1.26 0  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (045) Less than 454 kilograms  
 (612) 6,124 kilograms or more  
 (999) Unknown  
 \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs

Source: \_\_\_\_\_

44. Vehicle Cargo Weight 0 0 0 0  
 \_\_\_\_\_ Code weight to nearest 10 kilograms.  
 (000) Less than 5 kilograms  
 (454) 4,536 kilograms or more  
 (999) Unknown  
 \_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs

Source: \_\_\_\_\_

**ROLLOVER DATA**

45. Rollover 02  
 (00) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
 (01-16) Code the number of quarter turns  
 (17) Rollover, 17 or more quarter turns (specify): \_\_\_\_\_  
 (98) Rollover--end-over-end (i.e., primarily about the lateral axis)  
 (99) Rollover (overturn), details unknown
46. Rollover Initiation Type 02  
 (00) No rollover  
 (01) Trip-over  
 (02) Flip-over  
 (03) Turn-over  
 (04) Climb-over  
 (05) Fall-over  
 (06) Bounce-over  
 (07) Collision with another vehicle  
 (08) Other rollover initiation type specify): \_\_\_\_\_  
 (98) Rollover--end-over-end  
 (99) Unknown rollover initiation type
47. Location of Rollover Initiation 0  
 (0) No rollover  
 (1) On roadway  
 (2) On shoulder—paved  
 (3) On shoulder—unpaved  
 (4) On roadside or divided trafficway median  
 (8) Rollover--end-over-end  
 (9) Unknown
48. Rollover Initiation Object Contacted 02  
 (Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0  
 (0) No rollover  
 (1) Wheels/tires  
 (2) Side plane  
 (3) End plane  
 (4) Undercarriage  
 (5) Other location on vehicle (specify): \_\_\_\_\_  
 (6) Non-contact rollover forces (specify): \_\_\_\_\_  
 (8) Rollover--end-over-end  
 (9) Unknown
50. Direction of Initial Roll 0  
 (0) No rollover  
 (1) Roll right - primarily about the longitudinal axis  
 (2) Roll left - primarily about the longitudinal axis  
 (8) Rollover--end-over-end  
 (9) Unknown roll direction

**VERRIDE/UNDERRIDE (THIS VEHICLE)**

51. Front Override/Underride (this Vehicle) 1
52. Rear Override/Underride (this Vehicle) 4
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride
- Override (see specific CDC)*  
*[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*
- (1) 1st CDC  
 (2) 2nd CDC  
 (3) Other not automated CDC (specify): \_\_\_\_\_
- Underride (see specific CDC)*  
*[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*
- (4) 1st CDC  
 (5) 2nd CDC  
 (6) Other not automated CDC (specify): \_\_\_\_\_
- (7) Medium/heavy truck or bus override (of any configuration)  
 (9) Unknown

**HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V**

Values: (000)-(359) Code actual value  
 (996) Non-horizontal impact  
 (997) Noncollision  
 (998) Impact with object  
 (999) Unknown

53. Heading Angle For This Vehicle 000
54. Heading Angle For Other Vehicle 000

**RECONSTRUCTION DATA**

55. Towed Trailing Unit 0
- (0) No towed unit  
 (1) Yes—towed trailing unit  
 (9) Unknown
56. Documentation of Trajectory Data for This Vehicle 1
- (0) No  
 (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0
- (0) Not collision (for highest delta V) with tree or pole  
 (1) Not damaged  
 (2) Cracked/sheared  
 (3) Tilted <45 degrees  
 (4) Tilted ≥45 degrees  
 (5) Uprooted tree  
 (6) Separated pole from base  
 (7) Pole replaced  
 (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V**

58. Basis for Total (Resultant) Delta V (highest) 02

(00) No vehicle inspection

*Delta V Calculated*

- (01) Reconstruction program-damage only routine  
 (02) Reconstruction program-damage and trajectory routine  
 (03) Missing vehicle algorithm

*Delta V Not Calculated*

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

*All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.*

- (05) Rollover  
 (06) Other non-horizontal forces  
 (07) Sideswipe type damage  
 (08) Severe override  
 (09) Yielding object  
 (10) Overlapping damage  
 (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify): \_\_\_\_\_

- (98) Other, (specify): \_\_\_\_\_

## COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V Highest015

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

60. Longitudinal Component of Delta V Highest+ 0015

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means greater than

-0.5 kmph and less than +0.5 kmph)

(±160) ±159.5 kmph and above

(999) Unknown

61. Lateral Component of Delta V Highest- 000

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means greater than -0.5 kmph and less than +0.5 kmph)

(±160) ±159.5 kmph and above

(999) Unknown

62. Energy Absorption Highest14.000

\_\_\_\_ Nearest 100 joules (highest)

\_\_\_\_ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)

(9997) 999,650 joules or more

(9999) Unknown

63. Impact Speed Highest035

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(998) Trajectory algorithm not run

(999) Unknown

## DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program Results (For Highest Delta V)

1

(0) No reconstruction

(1) Collision fits model — results appear reasonable

(2) Collision fits model — results appear high

(3) Collision fits model — results appear low

(4) Borderline reconstruction — results appear reasonable

## OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed Highest016

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

ESTIMATED DELTA V	INSPECTION TYPE
66. Estimated Highest Delta V (Researcher Determined) <u>0</u> (0) Reconstruction Delta V coded  <i>Estimated Delta V</i> (1) Less than 10 kmph (2) $\geq 10$ kmph but $< 25$ kmph (3) $\geq 25$ kmph but $< 40$ kmph (4) $\geq 40$ kmph but $< 55$ kmph (5) $\geq 55$ kmph  <i>Other estimates of damage severity</i> (6) Minor (7) Moderate (8) Severe  (9) Unknown	67. Type of Vehicle Inspection <u>3</u> (0) No inspection (1) Vehicle fully repaired-no damage evident (2) Partial inspection (specify): _____ (3) Complete inspection  <b>DELTA V EVENT NUMBER</b>  68. Delta V Event Number <u>1</u> _____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle (99) Unknown

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), \*\*\*

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.



## EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number _____ 2. Case Number - Stratum <u>96-11</u>		3. Vehicle Number <u>01</u>
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## VEHICLE IDENTIFICATION

VIN 1 F A L P 6 5 3 X S K (Serial # omitted) Model Year 9 5  
Vehicle Make (specify): Ford Vehicle Model (specify): Contour GL

## LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
1	Begin (L) front bumper corner + extended to (R)	Full frontal	C2

### CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

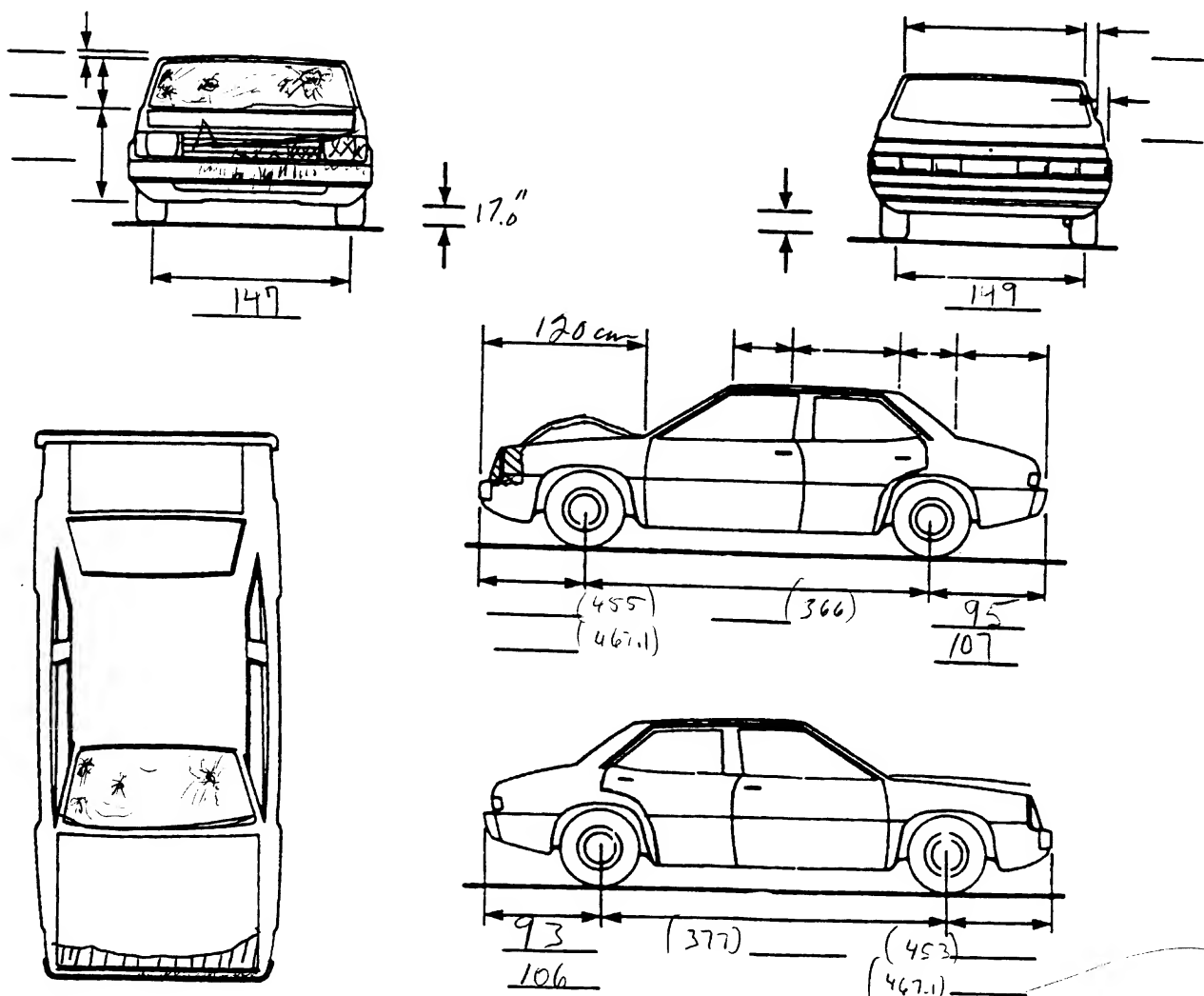
Use as many lines/columns as necessary to describe each damage profile.

[illegible]

## VEHICLE DAMAGE SKETCH

<b>TIRE—WHEEL DAMAGE</b> a. Rotation physically restricted RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u> (1) Yes (2) No (8) NA (9) Unk.		b. Tire deflated RF <u>2</u> LF <u>2</u> RR <u>2</u> LR <u>2</u>		<b>ORIGINAL SPECIFICATIONS</b> Wheelbase <u>(106.5") 278.5</u> cm Overall Length <u>(183.9") 462.1</u> cm Maximum Width <u>(69.1") 175.5</u> cm Curb Weight <u>(2,764) 1,256</u> kg Average Track <u>149.5</u> cm Front Overhang <u>106</u> cm Rear Overhang <u>90.5</u> cm Undeformed End Width <u>147.0</u> cm Engine Size: cyl./displ. <u>2 in 2 liter 16 Valves</u> L		<b>WHEEL STEER ANGLES</b> (For locked front wheels or displaced rear axles only) RF $\pm$ <u>N</u> <u>P</u> ° LF $\pm$ <u>7</u> <u>7</u> ° RR $\pm$ <u>7</u> <u>7</u> ° LR $\pm$ <u>7</u> <u>7</u> ° Within $\pm$ 5 degrees	
<b>TYPE OF TRANSMISSION</b> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic <b>END SHIFT <math>\geq</math> 10 CM</b> <input type="checkbox"/> Yes <input type="checkbox"/> No				<b>DRIVE WHEELS</b> <input checked="" type="checkbox"/> FWD <input type="checkbox"/> RWD <input type="checkbox"/> 4WD <b>Approximate Cargo Weight</b> <u>0</u> kg			

## MEASUREMENTS IN CENTIMETERS

*Booth, 2nd column*

NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

## CODES FOR OBJECT CONTACTED

(57) Fence

(58) Wall

- (59) Building  
(60) Ditch or culvert  
(61) Ground  
(62) Fire hydrant  
(63) Curb  
(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

### Collision with Nonfixed Object

(70) Passenger car, light truck, van, or other vehicle not in-transport

- (71) Medium/heavy truck or bus not in-transport  
(72) Pedestrian  
(73) Cyclist or cycle  
(74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

- (77) Train  
(78) Trailer, disconnected in transport  
(79) Object fell from vehicle in-transport  
(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

- (98) Other event (specify):

(99) Unknown event or object

[illegible]

## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>02</u>	6. <u>12</u>	7. <u>F</u>	8. <u>D</u>	9. <u>E</u>	10. <u>W</u>	11. <u>01</u>

## Second Highest Delta "V"

12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_ 16. \_\_\_\_\_ 17. \_\_\_\_\_ 18. \_\_\_\_\_ 19. \_\_\_\_\_

## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. L	21. C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	22. ± D
<u>144</u>	<u>009</u>	<u>012</u>	<u>006</u>	<u>004</u>	<u>003</u>	<u>000</u>	<u>+ 019</u>

## Second Highest Delta "V"

23. L	24. C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	25. ± D
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

26. Undeformed End Width  
(Coded when highest severity impact is an end plane impact.) 144  
 \_\_\_\_\_ Code to the nearest centimeter  
 (250) 250 centimeters or more  
 (998) No highest severity end plane impact  
 (999) Unknown

27. Direct Damage Width  
(For highest severity impact) 110  
 \_\_\_\_\_ Code to the nearest centimeter  
 (250) 250 centimeters or more  
 (999) Unknown

28. Original Wheelbase 271  
 \_\_\_\_\_ Code to the nearest centimeter  
 (650) 650 centimeters or more  
 (999) Unknown  
 \_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

29. Original Average Track Width 150  
 \_\_\_\_\_ Code to the nearest centimeter  
 (185) 185 centimeters or more  
 (999) Unknown  
 \_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters



30. Are CDCs Documented  
but Not Coded on The  
Automated File?

- (0) No  
(1) Yes

0

31. Researcher's Assessment of Vehicle  
Disposition

- (0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

1

32. Is This A Multi-Stage Manufactured Vehicle  
And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications  
(1) Yes - post manufacturer modifications  
(specify): \_\_\_\_\_

0

(Include photograph of CERTIFICATION  
PLACARD in case report)

- (9) Unknown if vehicle is modified

### FIRE OCCURRENCE

33. Fire Occurrence

- (0) No fire

0

Yes, fire occurred

- (1) Minor  
(2) Major  
(9) Unknown

34. Origin of Fire

- (0) No fire  
(1) Vehicle exterior (front, side, back, top)  
(2) Exhaust system  
(3) Fuel tank (and other fuel retention  
system parts)  
(4) Engine compartment  
(5) Cargo/trunk compartment  
(6) Instrument panel  
(7) Passenger compartment area  
(8) Other location (specify): \_\_\_\_\_

0

- (9) Unknown

### FUEL SYSTEM

35. Location of Fuel Tank-1 Filler Cap

3

36. Location of Fuel Tank-2 Filler Cap

0

- (0) No fuel tank  
(1) On back plane  
(2) Aft of center of the rear wheels (rear axle)  
on left side plane  
(3) Aft of center of the rear wheels (rear axle)  
on right side plane  
(4) Forward of center of the rear wheels (rear  
axle) on left side plane  
(5) Forward of center of the rear wheels (rear  
axle) on right side plane  
(6) Over the center of the rear wheels (rear  
axle) on left side plane  
(7) Over the center of the rear wheels (rear  
axle) on right side plane  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

37. Type of Fuel Tank-1

2

38. Type of Fuel Tank-2

0

- (0) No fuel tank (electrical vehicle)  
(1) Metallic  
(2) Non-metallic  
(9) Unknown

39. Location of Fuel Tank-1

4

40. Location of Fuel Tank-2

0

- (0) No fuel tank  
(1) Aft of center of the rear wheels (rear axle)  
centered  
(2) Aft of center of the rear wheels (rear axle)  
left side  
(3) Aft of center of the rear wheels (rear axle)  
right side  
(4) Forward of center of the rear wheels (rear  
axle) centered  
(5) Forward of center of the rear wheels (rear  
axle) left side  
(6) Forward of center of the rear wheels (rear  
axle) right side  
(7) Over center of the rear wheels (rear axle)  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

41. Damage to Fuel Tank-1

1

42. Damage to Fuel Tank-2

0

- (0) No fuel tank  
(1) No damage to fuel tank  
(2) Deformed, no seam failure  
(3) Deformed, with a seam failure  
(4) Punctured  
(5) Lacerated (ripped)  
(6) Abraded (scraped)  
(7) Filler neck separation from the fuel tank  
(8) Other damage (specify): \_\_\_\_\_  
(9) Unknown

43. Leakage Location of Fuel System-1

1

44. Leakage Location of Fuel System-2

0

- (0) No fuel tank  
(1) No fuel leakage

*Primary Area Of Leakage*

- (2) Tank  
(3) Filler neck  
(4) Cap  
(5) Lines/pump/filter  
(6) Vent/emission recovery  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

45. Fuel Type-1

01

46. Fuel Type-2

00*Single Fuel Type*

- (00) No fuel tank  
(01) Gasoline  
(02) Diesel  
(03) CNG (Compressed Natural Gas)  
(04) LPG (Liquid Petroleum Gas) also known as Propane  
(05) LNG (Liquid Natural Gas)  
(06) Methanol (M100 or M85)  
(07) Ethanol (E100 or E85)  
(08) Other (Hydrogen or others) (specify): \_\_\_\_\_

*Electric Powered or Electric/Solar Powered Vehicles*

- (10) Lead Acid Battery  
(11) Nickel-Iron Battery  
(12) Nickel-Cadmium Battery  
(13) Sodium Metal Chloride Battery  
(14) Sodium Sulfur Battery  
(18) Other (Specify): \_\_\_\_\_

(98) Other Hybrid (specify): \_\_\_\_\_

(99) Unknown fuel type

47. Is This Vehicle Equipped With More Than Two Fuel Tanks?

0

(0) No (one or two tanks only)

*Yes - More Than Two Tanks*

- (1) Yes -- no damage to any tank or filler cap and no fuel system leakage  
(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location): \_\_\_\_\_  
(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):  
Type of tank \_\_\_\_\_  
Tank location \_\_\_\_\_  
Filler cap location \_\_\_\_\_  
Tank damage \_\_\_\_\_  
Location of leakage \_\_\_\_\_  
Type of fuel \_\_\_\_\_  
(9) Unknown if more than two tanks

**COMMENTS**

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\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED \*\*\*

(GV10=0)

DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



# INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

## INTEGRITY

4. Passenger Compartment Integrity

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code Ø

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

## GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 2 17. RF 2 18. LR 2 19. RR 2  
20. BL 2 21. Roof 0 22. Other 0

(0) No glazing

(1) AS-1 — Laminated

(2) AS-2 — Tempered

(3) AS-3 — Tempered-tinted (original)

(4) AS-2 — Tempered-with after market tint

(5) AS-3 — Tempered-tinted (with additional after market tint)

(6) AS-14 — Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 2 25. RF 2 26. LR 2 27. RR 2  
28. BL 1 29. Roof 0 30. Other 0

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 2 32. LF 1 33. RF 1 34. LR 1 35. RR 1  
36. BL 1 37. Roof 0 38. Other 0

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 3 40. LF 1 41. RF 1 42. LR 1 43. RR 1  
44. BL 1 45. Roof 0 46. Other 0

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by occupant contact

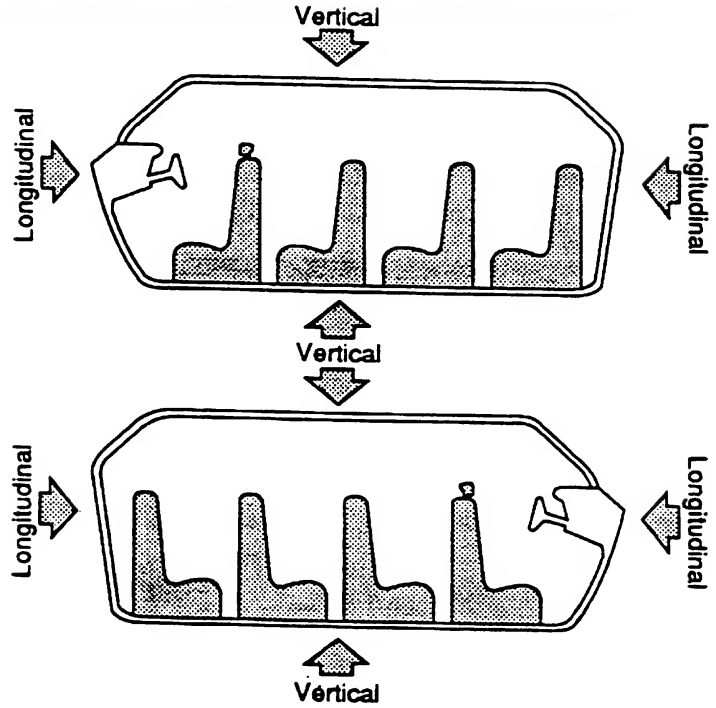
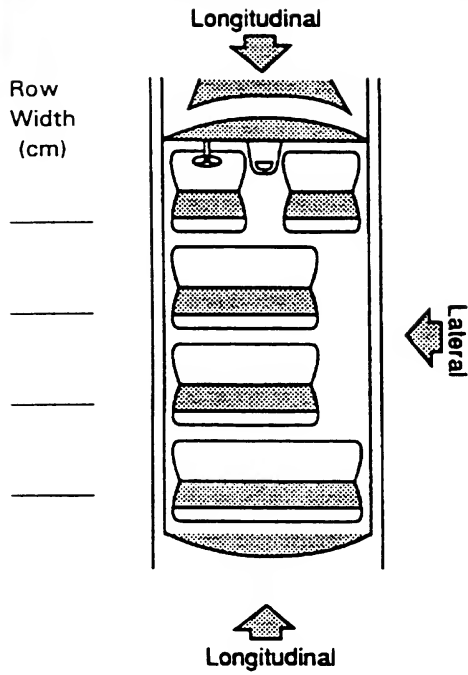
(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

# INTRUSION WORKSHEET

**NOTE: SKETCH INTRUDED AREAS**



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters)			INTRUSION	DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	INTRUDED VALUE	=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
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		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		

Document no more than the 15 most severe intrusions

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. _____	48. _____	49. _____	50. _____
2nd	51. _____	52. _____	53. _____	54. _____
3rd	55. _____	56. _____	57. _____	58. _____
4th	59. _____	60. _____	61. _____	62. _____
5th	63. _____	64. _____	65. _____	66. _____
6th	67. _____	68. _____	69. _____	70. _____
7th	71. _____	72. _____	73. _____	74. _____
8th	75. _____	76. _____	77. _____	78. _____
9th	79. _____	80. _____	81. _____	82. _____
10th	83. _____	84. _____	85. _____	86. _____

## LOCATION OF INTRUSION

Front Seat  
(11) Left  
(12) Middle  
(13) Right

Second Seat  
(21) Left  
(22) Middle  
(23) Right

Third Seat  
(31) Left  
(32) Middle  
(33) Right

Fourth Seat  
(41) Left  
(42) Middle  
(43) Right

(97) Catastrophic  
(98) Other enclosed area (specify) \_\_\_\_\_

(99) Unknown

## INTRUDING COMPONENT

## Interior Components

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): \_\_\_\_\_

## Exterior Components

- (30) Hood
- (31) Outside surface of this vehicle (specify): \_\_\_\_\_
- (32) Other exterior object in the environment (specify): \_\_\_\_\_
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): \_\_\_\_\_
- (99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown



## STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
------------------	---	--------------	---	-------------

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

	—		=	
--	---	--	---	--

# STEERING COLUMN

# INSTRUMENT PANEL

## 87. Steering Column Type

1

- (1) Fixed column
- (2) Tilt column
- (3) Telescoping column
- (4) Tilt and telescoping column
- (8) Other column type (specify):

(9) Unknown

## 88. Tilt Steering Column Adjustment

0

- (0) No tilt steering column
- (1) Full up
- (2) Between full up and center
- (3) Center
- (4) Between center and full down
- (5) Full down
- (9) Unknown

## 89. Telescoping Steering Column Adjustment

0

- (0) No telescoping steering column
- (1) Full back
- (2) Between full back and midpoint
- (3) Midpoint
- (4) Between midpoint and full forward
- (5) Full forward
- (9) Unknown

## 90. Steering Rim/Spoke Deformation

00

- Code actual measured
- deformation to the nearest centimeter
- (00) No steering rim deformation
- (01-14) Actual measured value in centimeters
- (15) 15 centimeters or more
- (98) Observed deformation cannot be measured
- (99) Unknown

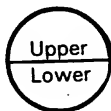
## 91. Location of Steering Rim/Spoke Deformation

00

- (00) No steering rim deformation

### Quarter Sections

- (01) Section A
- (02) Section B
- (03) Section C
- (04) Section D



### Half Sections

- (05) Upper half of rim/spoke
- (06) Lower half of rim/spoke
- (07) Left half of rim/spoke
- (08) Right half of rim/spoke



- (09) Complete steering wheel collapse
- (10) Undetermined location
- (99) Unknown

## 92. Odometer Reading

0 1 3,000

- \_\_\_\_\_ kilometers
- Code to the nearest 1,000 kilometers
- (000) No odometer
- (001) Less than 1,500 kilometers
- (500) 499,500 kilometers or more
- (999) Unknown

7 7 8 7 miles X 1.6093 = \_\_\_\_\_ kilometers

Source: Inspection

## 93. Instrument Panel Damage from Occupant Contact?

0

- (0) No
- (1) Yes
- (9) Unknown

## 94. Type of Knee Bolster Covering

2

- (0) No knee bolster
- (1) Padded
- (2) Rigid plastic
- (8) Other (specify):
- (9) Unknown

## 95. Knee Bolsters Deformed from Occupant Contact?

1

- (0) No knee bolster
- (1) No deformation
- (2) Yes - deformation
- (9) Unknown

## 96. Did Glove Compartment Door Open During Collision(s)?

+

- (0) No glove compartment door
- (1) No - door did not open
- (2) Yes - door opened
- (9) Unknown

## 97. Adaptive (Assistive) Driving Equipment

0

- (0) No adaptive driving equipment
- (1) Adaptive driving equipment installed (Check all that apply.)
- [ ] Hand controls for braking/acceleration
- [ ] Steering control devices (attached to OEM steering wheel)
- [ ] Steering knob attached to steering wheel
- [ ] Low effort power steering (unit or device)
- [ ] Replacement steering wheel (i.e., reduced diameter)
- [ ] Joy-stick steering controls
- [ ] Wheelchair tie-downs
- [ ] Modification to seat belts (specify):

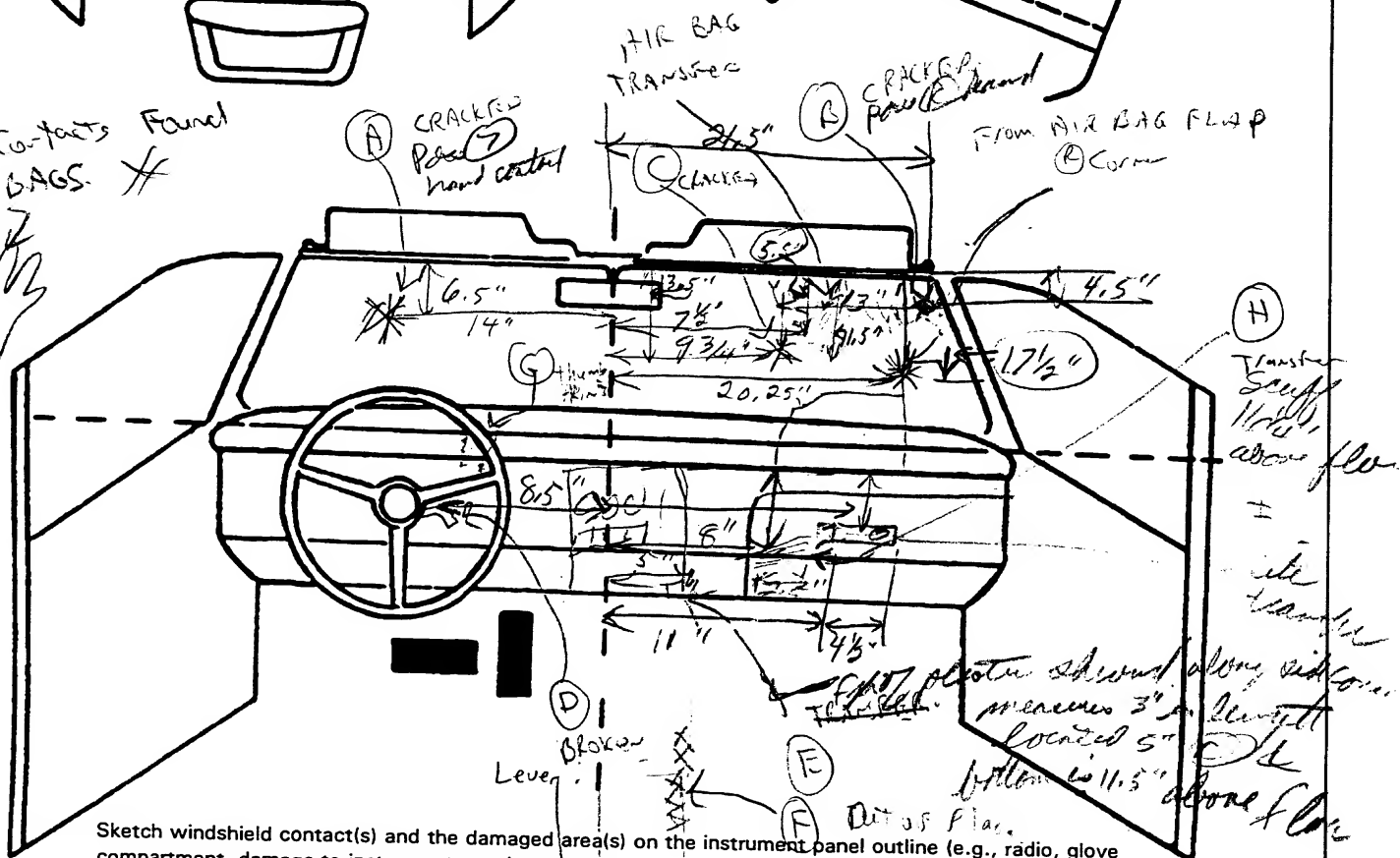
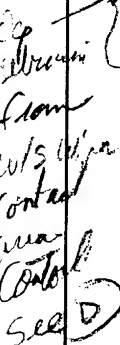
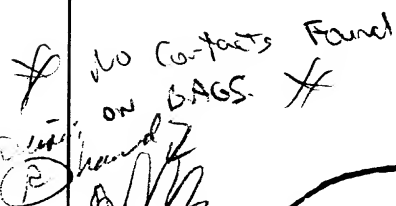
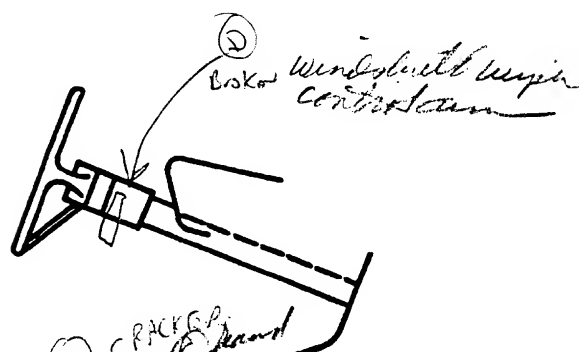
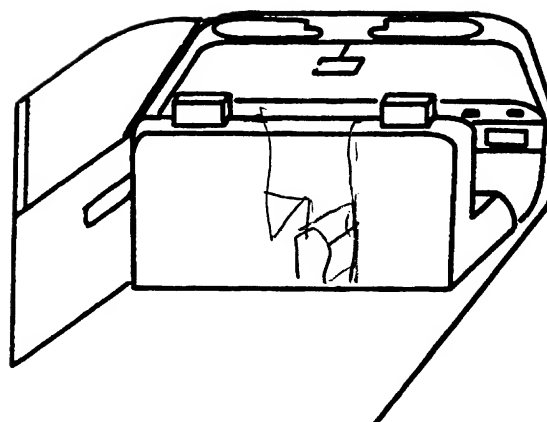
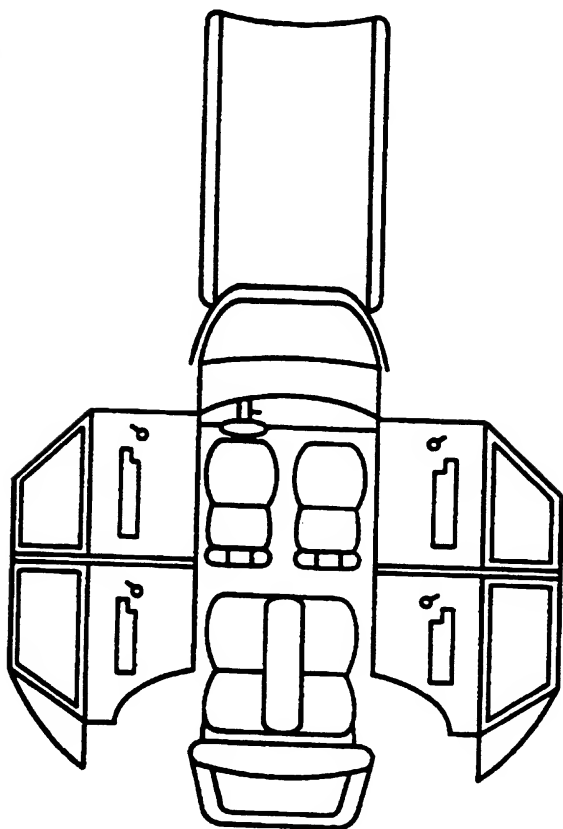
[ ] Additional or relocated switches (specify):

- [ ] Raised roof
- [ ] Wall-mounted head rest (used behind wheelchair)
- [ ] Other adaptive device (specify):

(9) Unknown

## VEHICLE INTERIOR SKETCHES

**Note area of ejection/entrapment**



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).  
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.  
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	001	1	Head/FACE	CRACKED	2
B	001	2	Upper Torso	CRACKED	2
C	001	2		CRACKED	2
D	007	1	(R) HAND	BROKEN	1
E	011	2	(L) Knee/Leg	TRANSFER	2
F	252	2	(L) Thigh/Hip	OUT OF PLACE	2
G	010	1	(R) HAND (Thumb)	SKIN TRANSFER / Slight Indentation	1
H	012	2	(L) Knee/Arm	TRANSFER	2
I					
J					
K					
L					
M					
N					

## FRONT

- (001) Windshield  
 (002) Mirror  
 (003) Sunvisor  
 (004) Steering wheel rim  
 (005) Steering wheel hub/spoke  
 (006) Steering wheel (combination of codes 004 and 005)  
 (007) Steering column, transmission selector lever, other attachment  
 (008) Cellular telephone or CB radio  
 (009) Add on equipment (e.g., tape deck, air conditioner)  
 (010) Left instrument panel and below  
 (011) Center instrument panel and below  
 (012) Right instrument panel and below  
 (013) Glove compartment door  
 (014) Knee bolster  
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)  
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)  
 (017) Windshield reinforced by exterior object, (specify):  
 (019) Other front object (specify):

## CODES FOR INTERIOR COMPONENTS

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests  
 (052) Left side hardware or armrest  
 (053) Left A (A1/A2)-pillar  
 (054) Left B-pillar  
 (055) Other left pillar (specify):  
 (056) Left side window glass  
 (057) Left side window frame  
 (058) Left side window sill  
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (060) Other left side object (specify):

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests  
 (102) Right side hardware or armrest  
 (103) Right A (A1/A2)-pillar  
 (104) Right B-pillar  
 (105) Other right pillar (specify):  
 (106) Right side window glass  
 (107) Right side window frame  
 (108) Right side window sill  
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (110) Other right side object (specify):

## INTERIOR

- (151) Seat, back support  
 (152) Belt restraint webbing/buckle  
 (153) Belt restraint B-pillar or door frame attachment point  
 (154) Other restraint system component (specify):  
 (155) Head restraint system  
 (160) Other occupants (specify):  
 (161) Interior loose objects  
 (162) Child safety seat (specify):  
 (163) Other interior object (specify):

## AIR BAG

- (170) Air bag-driver side  
 (175) Air bag compartment cover-driver side  
 (180) Air bag-passenger side  
 (185) Air bag compartment cover-passenger side  
 (190) Other air bag (specify)  
 (195) Other air bag compartment cover (specify)

## ROOF

- (201) Front header  
 (202) Rear header  
 (203) Roof left side rail  
 (204) Roof right side rail  
 (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)  
 (252) Floor or console mounted transmission lever, including console  
 (253) Parking brake handle  
 (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)  
 (302) Backlight storage rack, door, etc.  
 (303) Other rear object (specify):

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration  
 (402) Steering control devices (attached to OEM steering wheel)  
 (403) Steering knob attached to steering wheel  
 (405) Replacement steering wheel (i.e., reduced diameter)  
 (406) Joy stick steering controls  
 (407) Wheelchair tie-downs  
 (408) Modification to seat belts, (specify):  
 (409) Additional or relocated switches, (specify):  
 (410) Raised roof  
 (411) Wall mounted head rest (used behind wheel chair)  
 (412) Other adaptive device (specify):

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain  
 (2) Probable  
 (3) Possible  
 (9) Unknown

# MANUAL RESTRAINTS

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page 11.

If the vehicle has automatic restraints available, encode the appropriate data on page 6.

		Left	Center	Right
FIRST	A-Availability	4	/	4
	B-Evidence of usage	04		
	C-Used in this crash?	04		
	D-Proper Use	1		
	E-Failure Modes	1		
	F-Anchorage Adjustment	3		4
SECOND	A-Availability	4	3	4
	B-Evidence of usage	04	00	04
	C-Used in this crash?	00	00	00
	D-Proper Use	0	0	0
	E-Failure Modes	0	0	0
	F-Anchorage Adjustment	1	0	1
OTHER	A-Availability			
	B-Evidence of usage			
	C-Used in this crash?			
	D-Proper Use			
	E-Failure Modes			
	F-Anchorage Adjustment			

## A-Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

### Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

- (9) Unknown

## B/C-Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify):
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

## D-Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

### Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):
- (8) Other improper use of manual belt system (specify):

- (9) Unknown

## E-Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):
- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other manual belt failure (specify):
- (9) Unknown

## F-Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

### Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment



**AUTOMATIC RESTRAINTS**

**NOTES:** Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

**AIR BAGS**

		Frontal Air Bags--Left Front	Frontal Air Bags--Right Front	Other Air Bag
F I R S T	Availability/Function			
	Deployment			
	Failure			

**Air Bag System Availability/Function**

- (0) Not equipped/not available  
(1) Air bag

**Non-functional**

- (2) Air bag disconnected (specify):  
\_\_\_\_\_  
(3) Air bag not reinstalled  
(9) Unknown

**Air Bag System Deployment  
(This Occupant Position)**

- (0) Not equipped/not available  
(1) Deployed during accident (as a result of impact)  
(2) Deployed inadvertently just prior to accident  
(3) Deployed, accident sequence undetermined  
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(5) Unknown if deployed  
(7) Nondeployed  
(9) Unknown

**Are There Indications of Air Bag System Failure? (This Occupant Position)**

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
\_\_\_\_\_  
(9) Unknown

**AUTOMATIC BELTS**

		Left	Right
F I R S T	A-Availability/Function		
	B-Use		
	C-Type		
	D-Proper Use		
	E-Failure Modes		

**A-Automatic (Passive) Belt System Availability/Function**

- (0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

**Non-functional**

- (4) Automatic belts destroyed or rendered inoperative  
(9) Unknown

**B-Automatic (Passive) Belt System Use**

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)  
(3) Automatic belt use unknown  
(9) Unknown

**C-Automatic (Passive) Belt System Type**

- (0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

**D-Proper Use of Automatic (Passive) Belt System**

- (0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

**Automatic Belt Used Improperly**

- (3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than one person  
(6) Lap portion of automatic belt worn on abdomen  
(7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify):  
\_\_\_\_\_

- (8) Other improper use of automatic belt system (specify):  
\_\_\_\_\_  
(9) Unknown

**E-Automatic (Passive) Belt Failure Modes During Accident**

- (0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
\_\_\_\_\_  
(6) Broken retractor  
(7) Combination of above (specify):  
(8) Other automatic belt failure (specify):  
\_\_\_\_\_  
(9) Unknown

## FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data ***for the driver and first seat passenger*** in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
A-Type of air bag?	1	1
B-Flaps open at tear points?	2	2
C-Flaps damaged?	1	1
D-Air bag damaged?	01	01
E-Source of air bag damage	01	01
F-Air bag tethered?	Yes	Yes
G-Air bag have vent ports?	Yes 2	Yes 1 @ inboard
H-Other occupant contact air bag?	No	No
I-Occupant wearing eyewear?	Yes	No

**A-Type of Air Bag**

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

- A-Type of Air Bag**
- (0) Not equipped/not available
  - (1) Original manufacturer installed system
  - (2) Retrofitted air bag
  - (3) Replacement air bag
  - (8) Unknown type of air bag
  - (9) Unknown

**B-Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?**

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

- B-Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?**
- (0) Not equipped/not available
  - (1) No
  - (2) Yes
  - (3) Deployed, unknown if flap(s) opened at designated tear points
  - (7) Not deployed
  - (8) Unknown if deployed
  - (9) Unknown

**C-Were Air Bag Module Cover Flap(s)  
Damaged?**

(0) Not equipped/not available

(1) No

(2) Yes (specify):

(3) Deployed, unknown if air bag module  
cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

- C-Were Air Bag Module Cover Flap(s)  
Damaged?**
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module  
cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

**D-Was There Damage To The Air Bag?**  
 (00) Not equipped/not available  
 (01) Not damaged

*Yes - Air Bag Damage*  
 (02) Ruptured .  
 (03) Cut  
 (04) Torn  
 (05) Holed  
 (06) Burned  
 (07) Abraded  
 (88) Other damage (specify):

- D-Was There Damage To The Air Bag?**  
 (00) Not equipped/not available  
 (01) Not damaged
- Yes - Air Bag Damage*  
 (02) Ruptured .  
 (03) Cut  
 (04) Torn  
 (05) Holed  
 (06) Burned  
 (07) Abraded  
 (88) Other damage (specify):

**D-Was There Damage To The Air Bag?**  
 (00) Not equipped/not available  
 (01) Not damaged

*Yes - Air Bag Damage*  
 (02) Ruptured .  
 (03) Cut  
 (04) Torn  
 (05) Holed  
 (06) Burned  
 (07) Abraded  
 (88) Other damage (specify):

- D-Was There Damage To The Air Bag?**  
 (00) Not equipped/not available  
 (01) Not damaged
- Yes - Air Bag Damage*  
 (02) Ruptured .  
 (03) Cut  
 (04) Torn  
 (05) Holed  
 (06) Burned  
 (07) Abraded  
 (88) Other damage (specify):

**E-Source of Air Bag Damage**

(00) Not equipped/not available

(01) Not damaged

(02) Object worn by occupant, (specify):

---

(03) Object carried by occupant, (specify):

---

(04) Adaptive/assistive controls, (specify):

---

(05) Fire in vehicle

(06) Thermal burns

(07) Rescue or emergency efforts

(88) Other damage source (specify):

---

(95) Damaged, unknown source

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

- ### E-Source of Air Bag Damage
- (00) Not equipped/not available
  - (01) Not damaged
  - (02) Object worn by occupant, (specify):

---
  - (03) Object carried by occupant, (specify):

---
  - (04) Adaptive/assistive controls, (specify):

---
  - (05) Fire in vehicle
  - (06) Thermal burns
  - (07) Rescue or emergency efforts
  - (88) Other damage source (specify):

---
  - (95) Damaged, unknown source
  - (96) Deployed, unknown if damaged
  - (97) Not deployed
  - (98) Unknown if deployed
  - (99) Unknown

**F-Was The Air Bag Tethered?**

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):  

---
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

- F-Was The Air Bag Tethered?**
- (0) Not equipped/not available
  - (1) No
  - (2) Yes (specify number of tether straps):  

---
  - (3) Deployed, unknown if tethered
  - (7) Not deployed
  - (8) Unknown if deployed
  - (9) Unknown

**G-Did The Air Bag Have Vent Ports?**

(0) Not equipped/not available

(1) No

(2) Yes (specify number of vent ports):

---

(3) Deployed, unknown if vent ports present

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

- G-Did The Air Bag Have Vent Ports?**
- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- 
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

**H-Was the Air Bag in this Occupant's Position Contacted by Another Occupant?**

(0) Not equipped/not available  
(1) No  
(2) Yes (specify):

---

(3) Deployed, unknown if other occupant contact to air bag  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

- H-Was the Air Bag in this Occupant's Position Contacted by Another Occupant?**
- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):
- 
- (3) Deployed, unknown if other occupant contact to air bag  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

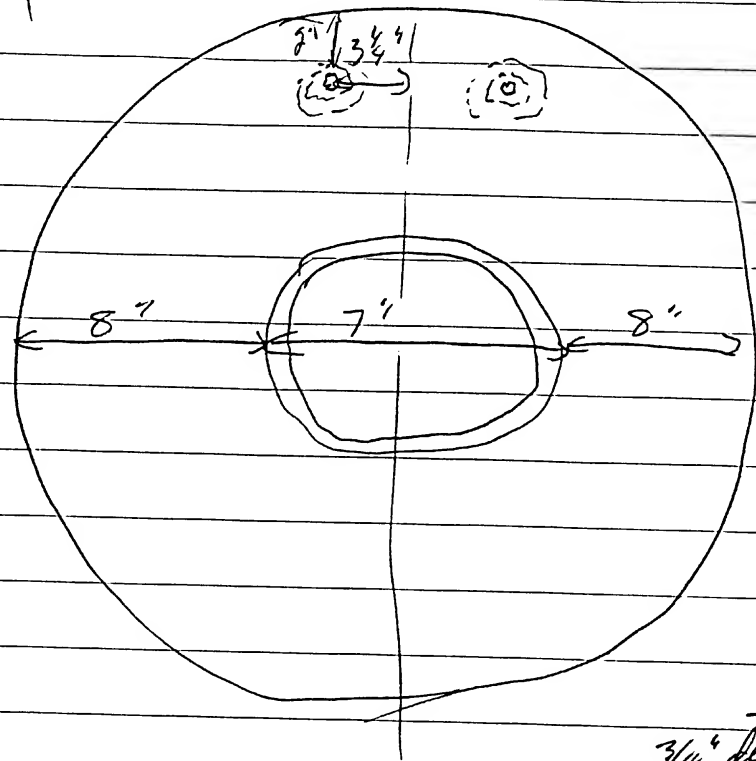
**I-Was This Occupant Wearing Eye-wear?**

- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

- I-Was This Occupant Wearing Eye-wear?**
- (0) Not equipped/not available
  - (1) No
  - (2) Eyeglasses/sunglasses
  - (3) Contact lenses
  - (4) Deployed, unknown if eyewear worn
  - (7) Not deployed
  - (8) Unknown if deployed
  - (9) Unknown

[REDACTED]

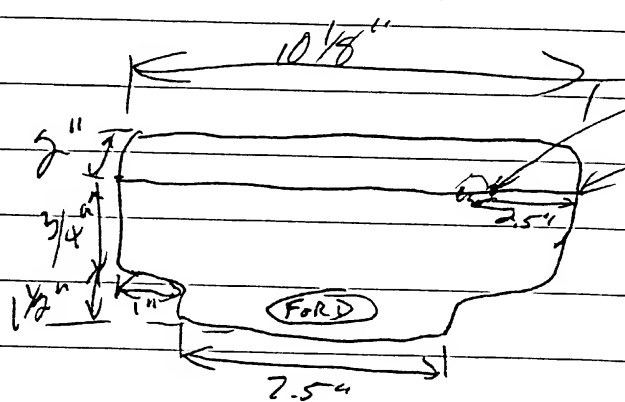
nylon net  
surface



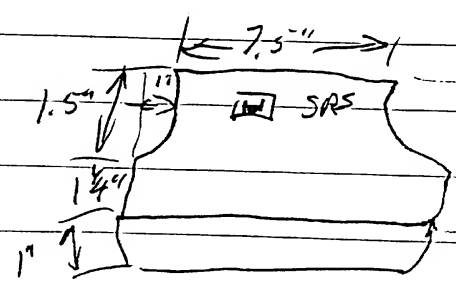
Hungary

3/16 "1 flap thickness

Upper  
lip



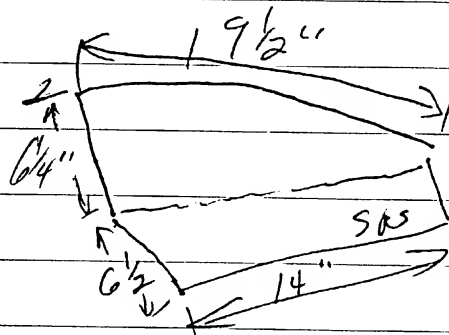
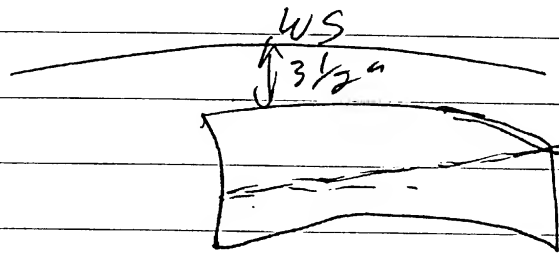
7.54



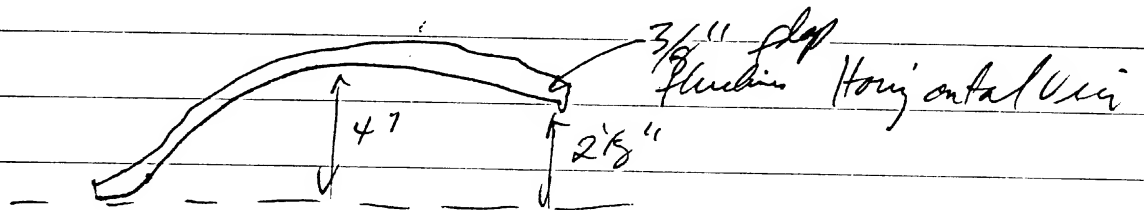
Curvature

No evidence of occupant contact  
Seat belt top had scuffing, indicating previous usage

RF air bag Module cover



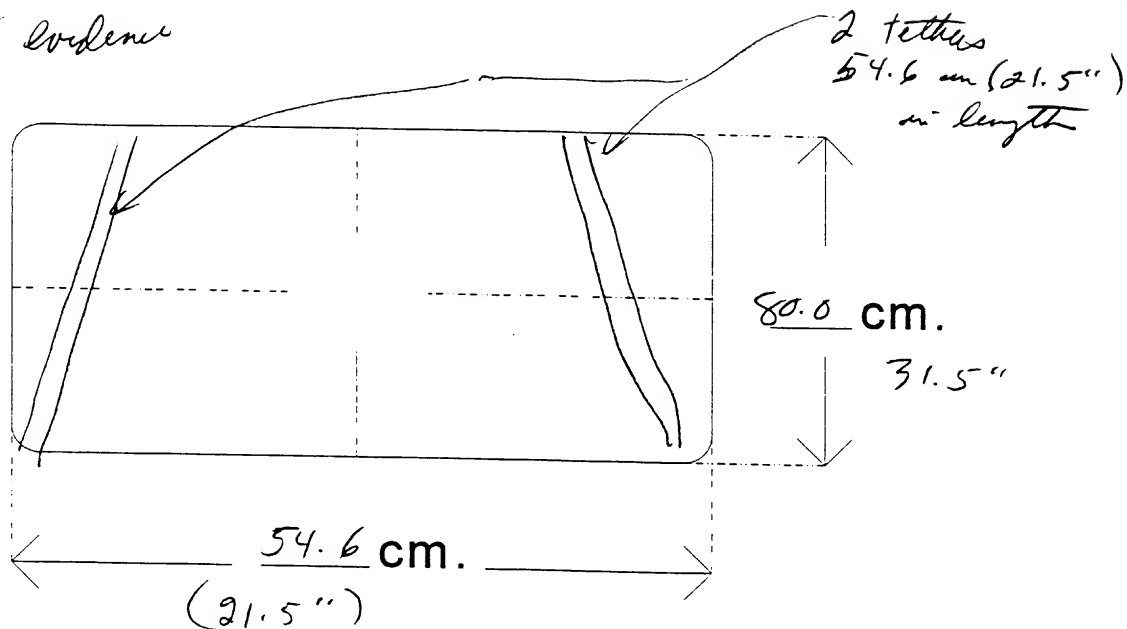
Vertical View



## PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES

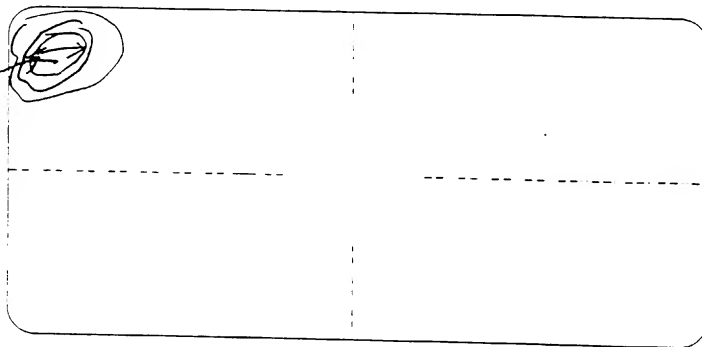
## 1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)

No contact evidence  
visible



## 2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)

Vent Port  
Diameter  
9.5 cm  
(3.75")





**"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES**

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)

**"OTHER" AIR BAG SKETCHES (Cont'd)**

3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG

4. SKETCH AIR BAG VENT PORTS

## HEAD RESTRAINTS/SEAT EVALUATION

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
FIRST	A-Head Restraint Type/Damage	3	/	3
	B-Seat Type	01		01
	C-Seat Orientation	1		1
	D-Seat Track Position	5		6
	E-Seat Back Incline Pre/Post Impact	23		23
	F-Seat Performance	1		1
SECOND	A-Head Restraint Type/Damage	0	0	0
	B-Seat Type	03	03	03
	C-Seat Orientation	1	1	1
	D-Seat Track Position	1	1	1
	E-Seat Back Incline Pre/Post Impact	01	01	01
	F-Seat Performance	1	1	1
THIRD	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			
OTHER	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

## HEAD RESTRAINTS/SEAT EVALUATION

**A-Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other
- Specify): \_\_\_\_\_
- (9) Unknown

**B-Seat Type (this Occupant Position)**

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Box mounted seat (i.e., van type)
- (10) Other seat type (specify): \_\_\_\_\_
- (99) Unknown

**C-Seat Orientation (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**D-Seat Track Adjusted Position Prior To Impact**

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

**Adjustable Seat Track**

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

**E-Seat Back Incline Prior and Post Impact**

- (00) Occupant not seated or no seat
- (01) Not adjustable

**Upright prior to impact**

- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

**Slightly reclined prior to impact**

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

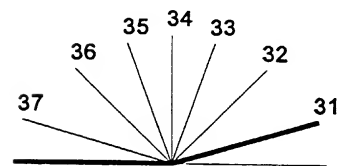
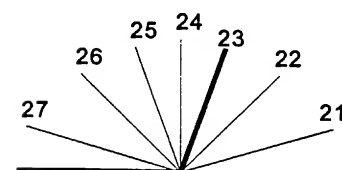
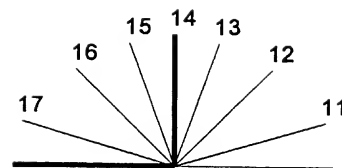
**Completely reclined prior to impact**

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position

- (99) Unknown

**F-Seat Performance (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

Coding diagrams for *Seat Back Incline Position Prior and Post Impact*

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

1. Type of Child Safety Seat

(0) No child safety seat  
 (1) Infant seat  
 (2) Toddler seat  
 (3) Convertible seat  
 (4) Booster seat  
 (7) Other type child safety seat (specify): \_\_\_\_\_  
 (8) Unknown child safety seat type  
 (9) Unknown if child safety seat used

2. Child Safety Seat Orientation

(00) No child safety seat

Designed for Rear Facing for This Age/Weight  
 (01) Rear facing  
 (02) Forward facing  
 (08) Other orientation (specify): \_\_\_\_\_  
 (09) Unknown orientation

Designed for Forward Facing for This Age/Weight  
 (11) Rear facing  
 (12) Forward facing  
 (18) Other orientation (specify): \_\_\_\_\_  
 (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight  
 (21) Rear facing  
 (22) Forward facing  
 (28) Other orientation (specify): \_\_\_\_\_  
 (29) Unknown orientation

(99) Unknown if child safety seat used

3. Child Safety Seat Harness Usage

4. Child Safety Seat Shield Usage

5. Child Safety Seat Tether Usage  
 Note: Options Below Are Used for Variables 3-5.  
 (00) No child safety seat

Not Designed with Harness/Shield/Tether  
 (01) After market harness/shield/tether added, not used  
 (02) After market harness/shield/tether used  
 (03) Child safety seat used, but no after market harness/shield/tether added  
 (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether  
 (11) Harness/shield/tether not used  
 (12) Harness/shield/tether used  
 (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether  
 (21) Harness/shield/tether not used  
 (22) Harness/shield/tether used  
 (29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

6. Child Safety Seat Make/Model  
 (Specify make/model and occupant number)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION** No ☒ Yes ☐

Describe indications of ejection and body parts involved in partial ejection(s):

---



---



---



---

Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

**Ejection Area**

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

**(7) Roof**

- (8) Other area (e.g., back of pickup, etc.) (specify):

**(9) Unknown****Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

**(5) Integral structure**

- (8) Other medium (specify):

**(9) Unknown****Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**ENTRAPMENT** No ☒ Yes ☐

Describe entrapment mechanism:

---



---



---



---

Component(s):

(Note on vehicle interior sketch)



# OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

CA 96-11

3. Vehicle Number

01

4. Occupant Number

01

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

78

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

1

7. Occupant's Height

Code actual height to the nearest  
centimeter.

(999) Unknown

177

\_\_\_\_ inches X 2.54 = \_\_\_\_ centimeters

8. Occupant's Weight

Code actual weight to the nearest  
kilogram.

(999) Unknown

099

\_\_\_\_ pounds X .4536 = \_\_\_\_ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

1

## OCCUPANT'S SEATING

10. Occupant's Seat Position

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

11

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

0

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with  
another occupant or to look out a rear  
window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in  
front of seat

(8) Other abnormal posture (specify):

(9) Unknown

## EJECTION/ENTRAPMENT

## 12. Ejection

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

0

## 13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

0

## 14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

0

## 15. Medium Status (Immediately Prior To Impact)

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

0

## 16. Entrapment

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

0

## 17. Occupant Mobility

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons  
(specify): \_\_\_\_\_
- (9) Unknown

4

## BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 04

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts +

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident +

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Manual Shoulder Belt Upper Anchorage Adjustment 3

- (0) No manual shoulder belt
- (1) No upper anchorage adjustment for manual shoulder belt

*Adjustable shoulder Belt Upper Anchorage*

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

(9) Unknown

## POLICE REPORTED RESTRAINT USE

## AIR BAG SYSTEM FUNCTION

28. Police Reported Belt Use 4

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [ ] Vehicle inspection  
 [ ] Official injury data  
 [ ] Driver/occupant interview  
 [ ] Other (specify):

[ ] Unknown if belt used

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

*Specify type of "other" air bag present:*

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

(9) Unknown



## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

(0) Not equipped/not available

(1) No previous accidents

Yes

(2) Previous accident(s) without deployment(s)

(3) One previous accident with deployment

(4) More than one previous accident with at least one deployment

(8) Previous accidents, unknown deployment status

(9) Unknown

36. Type of Air Bag 1

(0) Not equipped/not available

(1) Original manufacturer installed system

(2) Retrofitted air bag

(3) Replacement air bag

(8) Unknown type of air bag

(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

(0) Not equipped/not available

(1) No prior maintenance

(2) Yes, prior maintenance (specify): \_\_\_\_\_

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

(00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

(96) Deployed, unknown event

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

39. CDC For Air Bag Deployment Impact 1

(0) Not equipped/not available

(1) Highest delta V

(2) Second highest delta V

(3) Other non-coded delta V (specify): \_\_\_\_\_

(6) Deployed, unknown event

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

40. Longitudinal Component of Delta V For Air Bag + 0015

Deployment Impact

(\_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

(\_996) Deployment, unknown longitudinal Delta V

(\_997) Not deployed

(\_998) Unknown if deployed

(\_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

(0) Not equipped/not available

(1) No

(2) Yes

(3) Deployed, unknown if flap(s) opened at designated tear points

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

(0) Not equipped/not available

(1) No

(2) Yes (specify): \_\_\_\_\_

(3) Deployed, unknown if air bag module cover flap(s) damaged

(7) Not deployed

(8) Unknown if deployed

(9) Unknown

43. Was There Damage To The Air Bag? 01

(00) Not equipped/not available

(01) Not damaged

Yes - Air Bag Damage

(02) Ruptured

(03) Cut

(04) Torn

(05) Holed

(06) Burned

(07) Abraded

(88) Other damage (specify): \_\_\_\_\_

(95) Damaged, details unknown

(96) Deployed, unknown if damaged

(97) Not deployed

(98) Unknown if deployed

(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**

44. Source of Air Bag Damage 01  
 (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 (03) Object carried by occupant, (specify):  
 (04) Adaptive/assistive controls, (specify):  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (08) Other damage source (specify):  
 (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown
45. Was The Air Bag Tethered? 2  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps):  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 2  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports):  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 2  
 (0) Not air bag equipped/air bag not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

49. Head Restraint Type/Damage by Occupant at This Occupant Position 3  
 (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 (9) Unknown
50. Seat Type (this Occupant Position) 01  
 (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1  
 (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 5  
 (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track
- Adjustable Seat Track*  
 (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 23

(00) Occupant not seated or no seat

(01) Not adjustable

***Upright prior to impact***

(11) Moved to completely rearward position

(12) Moved to rearward midrange position

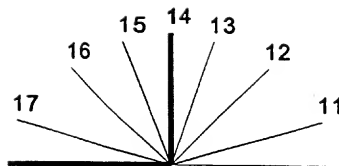
(13) Moved to slightly rearward position

(14) Retained pre-impact position

(15) Moved to slightly forward position

(16) Moved to forward midrange position

(17) Moved to completely forward position

***Slightly reclined prior to impact***

(21) Moved to completely rearward position

(22) Moved to rearward midrange position

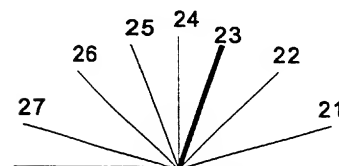
(23) Retained pre-impact position

(24) Moved to upright position

(25) Moved to slightly forward position

(26) Moved to forward midrange position

(27) Moved to completely forward position

***Completely reclined prior to impact***

(31) Retained pre-impact position

(32) Moved to rearward midrange position

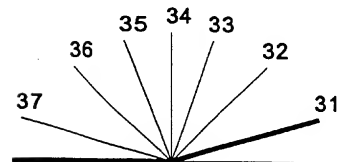
(33) Moved to slightly rearward position

(34) Moved to upright position

(35) Moved to slightly forward position

(36) Moved to forward midrange position

(37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) f

(0) Occupant not seated or no seat

(1) No seat performance failure(s)

(2) Seat adjusters failed

(3) Seat back folding locks or "seat back" failed  
(specify): \_\_\_\_\_

(4) Seat track/anchors failed

(5) Deformed by impact of occupant

(6) Deformed by passenger compartment intrusion, (specify): \_\_\_\_\_

(7) Combination of above (specify): \_\_\_\_\_

(8) Other (specify): \_\_\_\_\_

(9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 800  
(000) No child safety seat  
Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing  
(950) Built-in child safety seat  
(997) Other make/model (specify):

(998) Unknown make/model  
(999) Unknown if child safety seat used

56. Type of Child Safety Seat 0  
(0) No child safety seat  
(1) Infant seat  
(2) Toddler seat  
(3) Convertible seat  
(4) Booster seat - with shield  
(5) Booster seat - without shield  
(7) Other type child safety seat (specify):

(8) Unknown child safety seat type  
(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 07  
(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

- (01) Rear facing  
(02) Forward facing  
(08) Other orientation (specify):

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

- (11) Rear facing  
(12) Forward facing  
(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*

- (21) Rear facing  
(22) Forward facing  
(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 80

59. Child Safety Seat Shield Usage 07

60. Child Safety Seat Tether Usage 07

Note: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

- (01) After market harness/shield/tether  
added, not used  
(02) After market harness/shield/tether used  
(03) Child safety seat used, but no after market  
harness/shield/tether added  
(09) Unknown if harness/shield/tether  
added or used

*Designed With Harness/Shield/Tether*

- (11) Harness/shield/tether not used  
(12) Harness/shield/tether used  
(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

- (21) Harness/shield/tether not used  
(22) Harness/shield/tether used  
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES**61. Injury Severity (Police Rating) 0

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):  
\_\_\_\_\_
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_

(9) Unknown

64. Hospital Stay 02

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**



**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES**

## 66. Time to Death

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

## 67. 1st Medically Reported Cause of Death

## 68. 2nd Medically Reported Cause of Death

## 69. 3rd Medically Reported Cause of Death

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

- (97) Other result (includes fatal ruled disease) (specify):

- (99) Unknown

## 70. Number of Recorded Injuries for This Occupant

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

**TRAUMA DATA**

## 71. Glasgow Coma Scale (GCS) Score (at Medical Facility)

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

## 72. Was the Occupant Given Blood?

- (1) No - blood not given

- (2) Yes - blood given

(specify units):

- (9) Unknown if blood given

73. Arterial Blood Gases (ABG) -  $\text{HCO}_3$ 

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the  $\text{HCO}_3$   
(96) ABGs reported,  $\text{HCO}_3$  unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

## 74. Primary Source of Belt Use Determination

- (0) Not equipped/not available/destroyed or rendered inoperative

- (1) Vehicle inspection

- (2) Official injury data

- (3) Driver/occupant interview

- (8) Other (specify):

- (9) Unknown if belt used



BEST AVAILABLE

U.S. Department of Transportation  
National Highway Traffic Safety  
Administration

# OCCUPANT INJURY FORM

Form Approved  
O.M.B. No. 2127-0021  
NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

3. Vehicle Number

2. Case Number - Stratum

4. Occupant Number

## INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.
2nd	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.
3rd	27.	28.	29.	30.	31.	32.	33.	34.	35.	36.	37.
4th	38.	39.	40.	41.	42.	43.	44.	45.	46.	47.	48.
5th	49.	50.	51.	52.	53.	54.	55.	56.	57.	58.	59.
6th	60.	61.	62.	63.	64.	65.	66.	67.	68.	69.	70.
7th	71.	72.	73.	74.	75.	76.	77.	78.	79.	80.	81.
8th	82.	83.	84.	85.	86.	87.	88.	89.	90.	91.	92.
9th	93.	94.	95.	96.	97.	98.	99.	100.	101.	102.	103.
10th	104.	105.	106.	107.	108.	109.	110.	111.	112.	113.	114.

## OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive	(1) Right
(2) Face		two-digit numbers	(2) Left
(3) Neck	<u>Vessels, Nerves, Organs.</u>	beginning with 02.	(3) Bilateral
(4) Thorax	<u>Bones, Joints</u> are assigned		(4) Central
(5) Abdomen	consecutive two digit		(5) Anterior
(6) Spine	numbers beginning with	To the extent possible,	(6) Posterior
(7) Upper Extremity	02.	within the organizational	(7) Superior
(8) Lower Extremity		framework of the AIS, 00	(8) Inferior
(9) Unspecified	The exceptions to this rule	is assigned to an injury	(9) Unknown
	apply to:	NFS as to severity or	(0) Whole region
		where only one injury is	
		given in the dictionary for	
		that anatomic structure.	
		99 is assigned to any	
		injury NFS as to lesion or	
		severity.	
<b>Type of Anatomic Structure</b>	<b>Whole Area</b>	<b>Abbreviated Injury Scale</b>	
(1) Whole Area	(02) Skin - Abrasion	(1) Minor Injury	
(2) Vessels	(04) Skin - Contusion	(2) Moderate Injury	
(3) Nerves	(06) Skin - Laceration	(3) Serious Injury	
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion	(4) Severe Injury	
(5) Skeletal (includes joints)	(10) Amputation	(5) Critical Injury	
(6) Head - LOC	(20) Burn	(6) Maximum (untreatable)	
(9) Skin	(30) Crush	(7) Injured, unknown severity	
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<b>Head - LOC</b>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<b>Spine</b>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		

SOURCE OF INJURY DATA	INJURY SOURCE CONFIDENCE LEVEL	DIRECT/INDIRECT INJURY
<b>OFFICIAL RECORDS</b>		
(1) Autopsy records with or without hospital/medical records	(1) Certain	(1) Direct contact injury
(2) Hospital/medical records other than emergency room (e.g., discharge summary)	(2) Probable	(2) Indirect contact injury
(3) Emergency room records only (including associated X-rays or other lab reports)	(3) Possible	(3) Noncontact injury
(4) Private physician, walk-in or emergency clinic	(9) Unknown	(7) Injured, unknown source
<b>UNOFFICIAL RECORDS</b>		
(5) Lay coroner report		
(6) E.M.S. personnel		
(7) Interviewee		
(8) Other source (specify): _____		
(9) Police _____		

## INJURY SOURCES

## FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): \_\_\_\_\_

- (019) Other front object (specify): \_\_\_\_\_

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): \_\_\_\_\_
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): \_\_\_\_\_

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): \_\_\_\_\_
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): \_\_\_\_\_

## INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): \_\_\_\_\_
- (155) Head restraint system
- (160) Other occupants (specify): \_\_\_\_\_
- (161) Interior loose objects
- (162) Child safety seat (specify): \_\_\_\_\_

- (163) Other interior object (specify): \_\_\_\_\_

## AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify) \_\_\_\_\_
- (195) Other air bag compartment cover (specify) \_\_\_\_\_

## ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): \_\_\_\_\_

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): \_\_\_\_\_
- (409) Additional or relocated switches, (specify): \_\_\_\_\_

- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): \_\_\_\_\_

## EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): \_\_\_\_\_
- (454) Unknown exterior objects

## EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): \_\_\_\_\_
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): \_\_\_\_\_
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (514) Unknown exterior of other motor vehicle

## OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): \_\_\_\_\_
- (599) Unknown vehicle or object

## NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): \_\_\_\_\_
- (604) Air bag exhaust gases
- (697) Injured, unknown source

## OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Restrained?

☐ No

☐ Yes

Blood Alcohol Level  
(mg/dl)

BAL = \_\_\_\_

Glasgow Coma  
Scale Score

GCSS = \_\_\_\_

Units of Blood  
Given

Units = \_\_\_\_

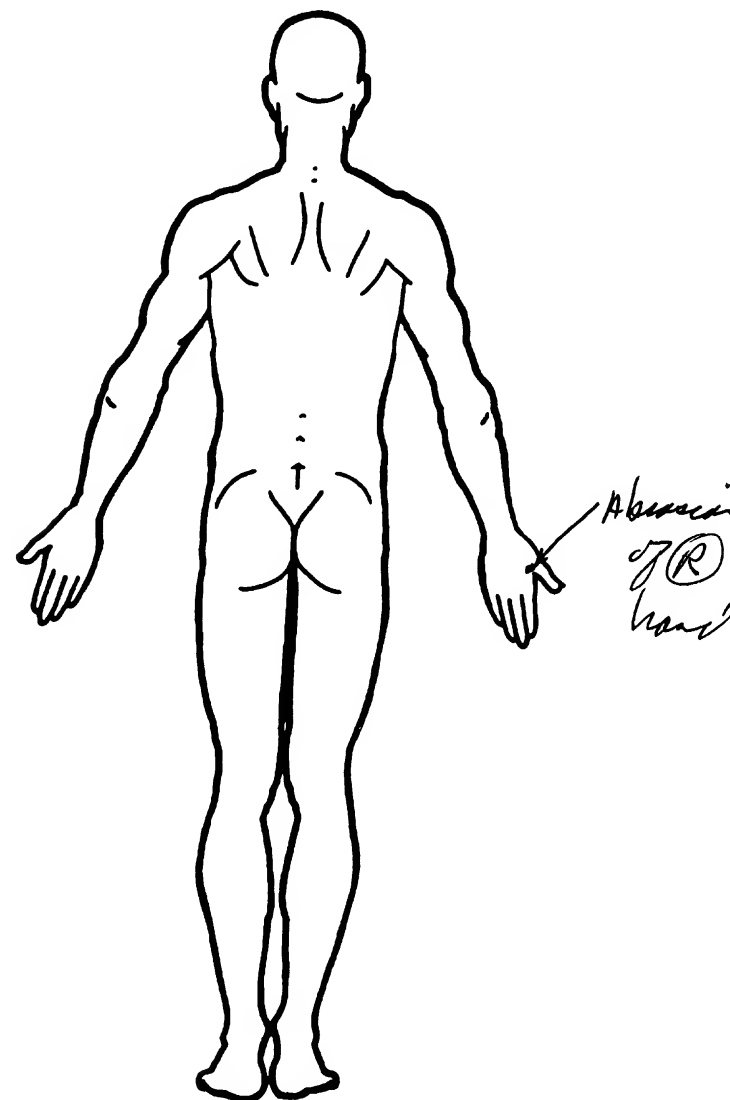
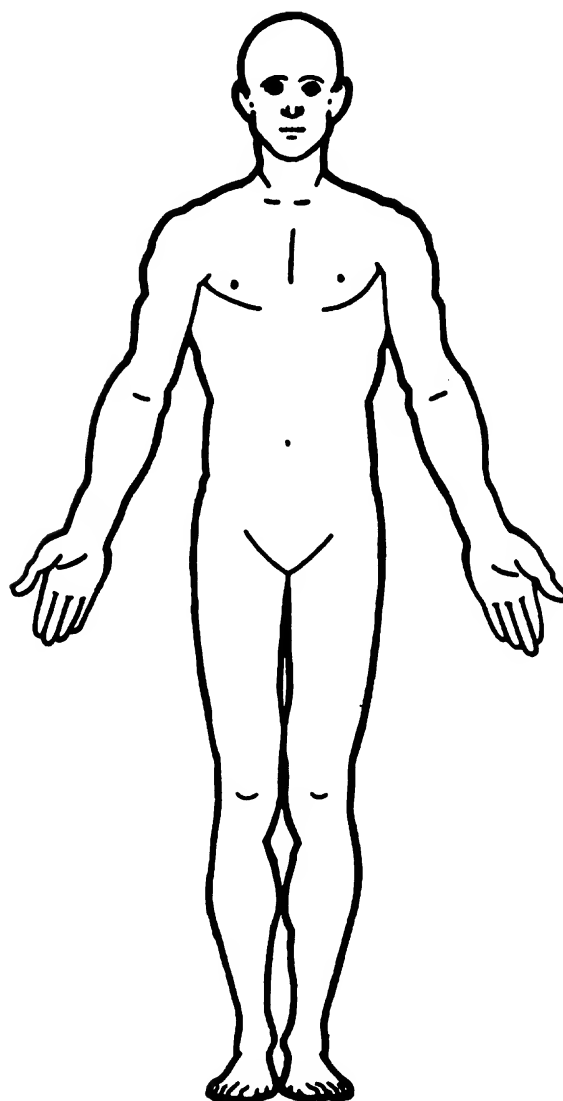
Arterial Blood Gases

pH = \_\_\_\_

PO<sub>2</sub> = \_\_\_\_

PCO<sub>2</sub> \_\_\_\_

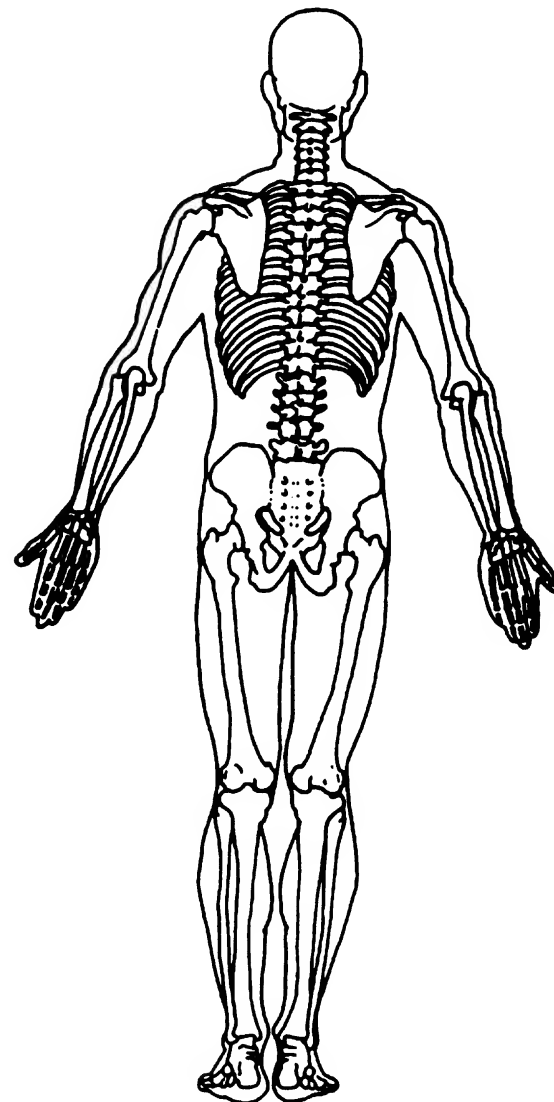
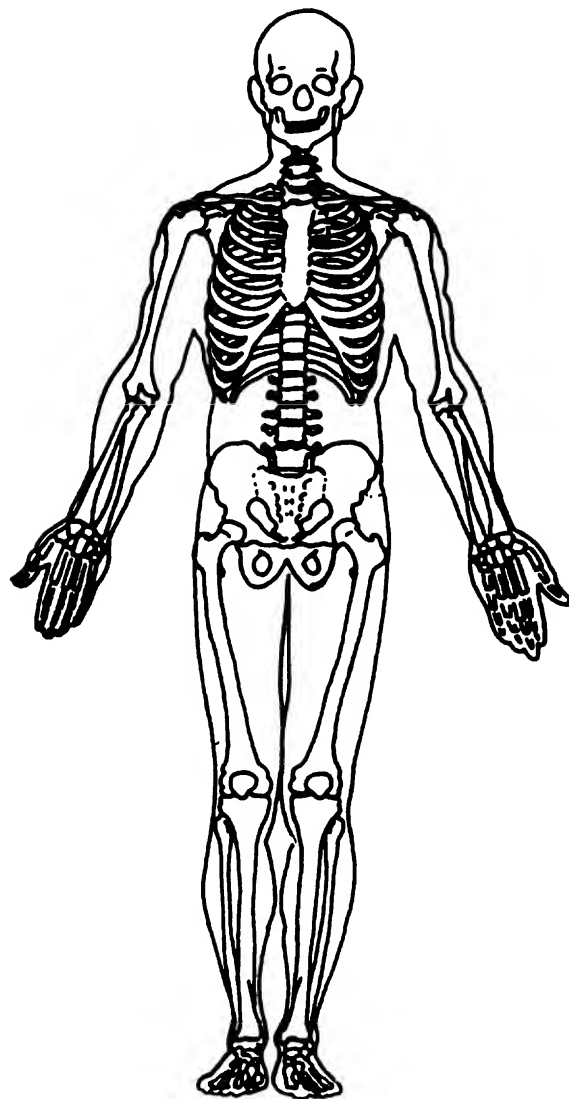
HCO<sub>3</sub> \_\_\_\_





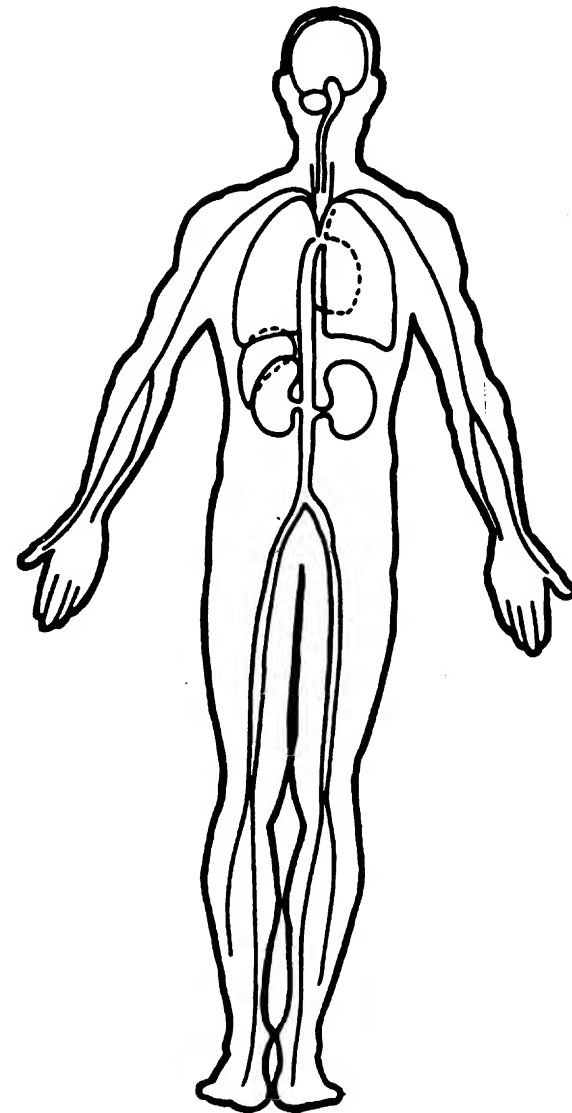
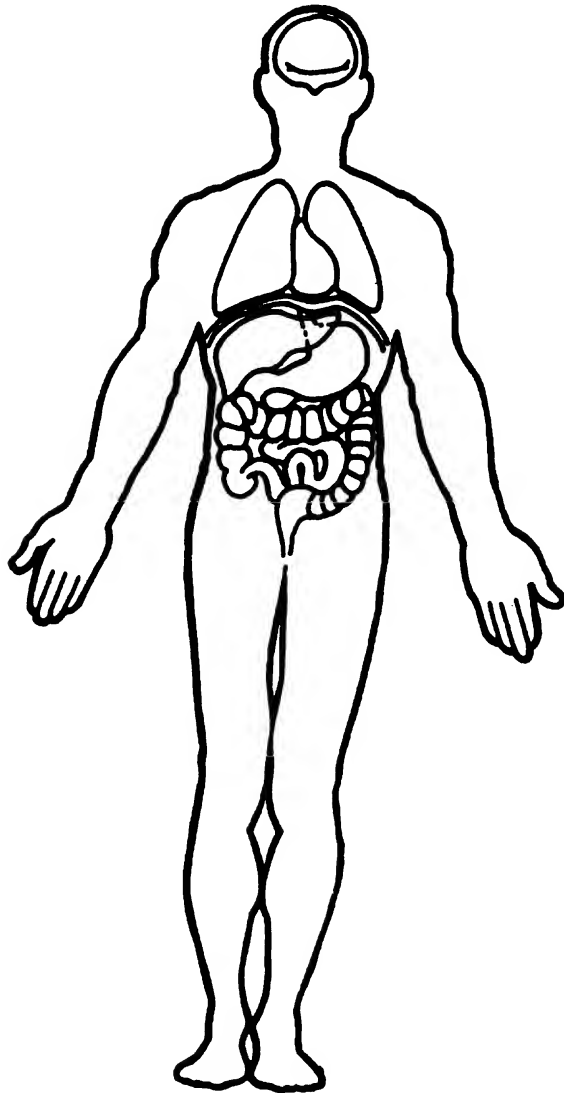
## OFFICIAL INJURY DATA — SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)





# OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest  
centimeter.

(999) Unknown

\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

8. Occupant's Weight

Code actual weight to the nearest  
kilogram.

(999) Unknown

\_\_\_\_\_ pounds X .4536 = \_\_\_\_\_ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

## OCCUPANT'S SEATING

10. Occupant's Seat Position

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with  
another occupant or to look out a rear  
window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in  
front of seat

(8) Other abnormal posture (specify):

(9) Unknown

## EJECTION/ENTRAPMENT

## 12. Ejection

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

0

## 13. Ejection Area

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

0

## 14. Ejection Medium

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

0

## 15. Medium Status (Immediately Prior To Impact)

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

0

## 16. Entrapment

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

0

## 17. Occupant Mobility

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons  
(specify): \_\_\_\_\_
- (9) Unknown

1

## BELT SYSTEM FUNCTION

18. Manual (Active) Belt System Availability 4

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

19. Manual (Active) Belt System Use 03

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

20. Proper Use of Manual (Active) Belts 4

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

21. Manual (Active) Belt Failure Modes During Accident 1

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

22. Manual Shoulder Belt Upper Anchorage Adjustment 4

- (0) No manual shoulder belt
- (1) No upper anchorage adjustment for manual shoulder belt

*Adjustable shoulder Belt Upper Anchorage*

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

23. Automatic (Passive) Belt System Availability/Function 0

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

24. Automatic (Passive) Belt System Use 0

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

25. Automatic (Passive) Belt System Type 0

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

26. Proper Use of Automatic (Passive) Belt System 0

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

27. Automatic (Passive) Belt Failure Modes During Accident 0

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

(9) Unknown

## POLICE REPORTED RESTRAINT USE

28. Police Reported Belt Use 4
- (0) None used
  - (1) Police did not indicate belt use
  - (2) Shoulder belt
  - (3) Lap belt
  - (4) Lap and shoulder belt
  - (5) Belt used, type not specified
  - (6) Child safety seat
  - (7) Automatic belt
  - (8) Other type belt, (specify):

(9) Police indicated "unknown"

29. Police Reported Air Bag Availability/Function 2

- (0) No air bag available
- (1) Police did not indicate air bag availability/function
- (2) Deployed
- (3) Not deployed
- (4) Unknown if deployed
- (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [ ] Vehicle inspection
- [ ] Official injury data
- [ ] Driver/occupant interview
- [ ] Other (specify):

[ ] Unknown if belt used

## AIR BAG SYSTEM FUNCTION

30. Frontal Air Bag System Availability/Function (This Occupant Position) 1
- (0) Not equipped/not available
  - (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

31. Frontal Air Bag System Deployment (This Occupant Position) 1

- (0) Not equipped/not available
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position) 0

- (0) Not equipped/not available
- (1) Air bag

*Non-functional*

(2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

*Specify type of "other" air bag present:*

33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position) 0

- (0) Not equipped with an "other" air bag
- (1) Deployed during accident (as a result of impact)
- (2) Deployed inadvertently just prior to accident
- (3) Deployed, details unknown
- (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)
- (5) Unknown if deployed
- (7) Nondeployed
- (9) Unknown

34. Are There Indications of Air Bag System Failure? (This Occupant Position) 1

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):

(9) Unknown



## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)? 1

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag 1

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System? 1

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):  
(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number 01

- (00) Not equipped/not available  
Code the accident event sequence number that initiated the air bag deployment  
(96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact 1

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):  
(6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact + 015

- ( \_ 000) Not equipped/not available  
Code the value of the delta V for the impact that initiated the air bag deployment  
( \_ 996) Deployment, unknown longitudinal Delta V  
( \_ 997) Not deployed  
( \_ 998) Unknown if deployed  
( \_ 999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points? 2

- (0) Not equipped/not available  
(1) No  
(2) Yes  
(3) Deployed, unknown if flap(s) opened at designated tear points  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged? 1

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(3) Deployed, unknown if air bag module cover flap(s) damaged  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

43. Was There Damage To The Air Bag? 01

- (00) Not equipped/not available  
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured  
(03) Cut  
(04) Torn  
(05) Holed  
(06) Burned  
(07) Abraded  
(88) Other damage (specify):  
(95) Damaged, details unknown  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**

44. Source of Air Bag Damage 01  
 (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 (03) Object carried by occupant, (specify):  
 (04) Adaptive/assistive controls, (specify):  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (08) Other damage source (specify):  
 (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown
45. Was The Air Bag Tethered? 2  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps): (2)  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 2  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports): (1)  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 1  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 1  
 (0) Not air bag equipped/air bag not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

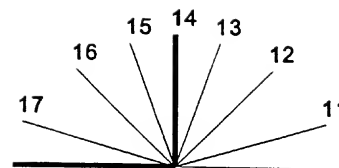
49. Head Restraint Type/Damage by Occupant at This Occupant Position 3  
 (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 (9) Unknown
50. Seat Type (this Occupant Position) 01  
 (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1  
 (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 6  
 (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track
- Adjustable Seat Track*  
 (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*

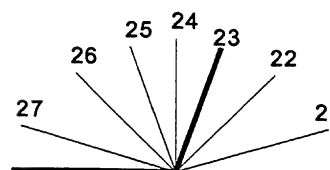
53. Seat Back Incline Prior and Post Impact 23  
 (00) Occupant not seated or no seat  
 (01) Not adjustable

***Upright prior to impact***

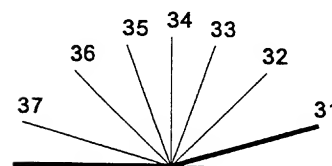
- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 1  
 (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed  
     (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment  
     intrusion, (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model 000  
(000) No child safety seat  
Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing  
(950) Built-in child safety seat  
(997) Other make/model (specify):

(998) Unknown make/model  
(999) Unknown if child safety seat used

56. Type of Child Safety Seat 2  
(0) No child safety seat  
(1) Infant seat  
(2) Toddler seat  
(3) Convertible seat  
(4) Booster seat - with shield  
(5) Booster seat - without shield  
(7) Other type child safety seat (specify):

(8) Unknown child safety seat type  
(9) Unknown if child safety seat used

57. Child Safety Seat Orientation 00  
(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing  
(02) Forward facing  
(08) Other orientation (specify):

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing  
(12) Forward facing  
(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight*

(21) Rear facing  
(22) Forward facing  
(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage 00

59. Child Safety Seat Shield Usage 1

60. Child Safety Seat Tether Usage 1

Note: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*

(01) After market harness/shield/tether  
added, not used  
(02) After market harness/shield/tether used  
(03) Child safety seat used, but no after market  
harness/shield/tether added  
(09) Unknown if harness/shield/tether  
added or used

*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used  
(12) Harness/shield/tether used  
(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used  
(22) Harness/shield/tether used  
(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES**61. Injury Severity (Police Rating) 3

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 3

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):  
\_\_\_\_\_
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 1

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

64. Hospital Stay 03

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 97

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES**

66. Time to Death 00  
Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)  
(00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown
67. 1st Medically Reported Cause of Death 00
68. 2nd Medically Reported Cause of Death 00
69. 3rd Medically Reported Cause of Death 00  
Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death  
(00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):  
(97) Other result (includes fatal ruled disease) (specify):  
(99) Unknown
70. Number of Recorded Injuries for This Occupant 07  
Code the actual number of injuries recorded for this occupant.  
(00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

**TRAUMA DATA**

71. Glasgow Coma Scale (GCS) Score 08  
(at Medical Facility)  
(00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured
72. Was the Occupant Given Blood? 1  
(1) No - blood not given  
(2) Yes - blood given  
(specify units):  
(9) Unknown if blood given
73. Arterial Blood Gases (ABG) - HCO<sub>3</sub> 01  
(00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the HCO<sub>3</sub>  
(96) ABGs reported, HCO<sub>3</sub> unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

74. Primary Source of Belt Use Determination 1  
(0) Not equipped/not available/destroyed or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify):  
(9) Unknown if belt used





## OCCUPANT INJURY FORM

1. Primary Sampling Unit Number	3. Vehicle Number <u>01</u>
2. Case Number - Stratum <u>CA 96 11</u>	4. Occupant Number <u>02</u>

### INJURY DATA

Record below the actual injuries sustained by this occupant that were identified from the official and unofficial data sources. Remember not to double count an injury just because it was identified from two different sources. If greater than ten injuries have been documented, encode the balance on the Occupant Injury Supplement.

	Source of Injury Data	Body Region	Type of Anatomic Structure	Specific Anatomic Structure	Level of Injury	A.I.S. Severity	Aspect	Injury Source	Injury Source Confidence Level	Direct/ Indirect Injury	Occupant Area Intrusion Number
1st	5. <u>2</u>	6. <u>1</u>	7. <u>6</u>	8. <u>06</u>	9. <u>04</u>	10. <u>3</u>	11. <u>0</u>	12. <u>180</u>	13. <u>1</u>	14. <u>1</u>	15. <u>00</u>
2nd	16. <u>2</u>	17. <u>2</u>	18. <u>4</u>	19. <u>34</u>	20. <u>02</u>	21. <u>1</u>	22. <u>8</u>	23. <u>180</u>	24. <u>1</u>	25. <u>1</u>	26. <u>00</u>
3rd	27. <u>2</u>	28. <u>3</u>	29. <u>9</u>	30. <u>02</u>	31. <u>02</u>	32. <u>1</u>	33. <u>1</u>	34. <u>180</u>	35. <u>1</u>	36. <u>1</u>	37. <u>00</u>
4th	38. <u>2</u>	39. <u>3</u>	40. <u>9</u>	41. <u>04</u>	42. <u>02</u>	43. <u>1</u>	44. <u>1</u>	45. <u>180</u>	46. <u>1</u>	47. <u>1</u>	48. <u>00</u>
5th	49. <u>2</u>	50. <u>2</u>	51. <u>5</u>	52. <u>14</u>	53. <u>02</u>	54. <u>1</u>	55. <u>8</u>	56. <u>180</u>	57. <u>1</u>	58. <u>1</u>	59. <u>00</u>
6th	60. <u>2</u>	61. <u>2</u>	62. <u>9</u>	63. <u>04</u>	64. <u>02</u>	65. <u>1</u>	66. <u>1</u>	67. <u>180</u>	68. <u>1</u>	69. <u>1</u>	70. <u>00</u>
7th	71. <u>2</u>	72. <u>5</u>	73. <u>1</u>	74. <u>50</u>	75. <u>99</u>	76. <u>7</u>	77. <u>0</u>	78. <u>152</u>	79. <u>1</u>	80. <u>1</u>	81. <u>00</u>
8th	82. <u>  </u>	83. <u>  </u>	84. <u>  </u>	85. <u>  </u>	86. <u>  </u>	87. <u>  </u>	88. <u>  </u>	89. <u>  </u>	90. <u>  </u>	91. <u>  </u>	92. <u>  </u>
9th	93. <u>  </u>	94. <u>  </u>	95. <u>  </u>	96. <u>  </u>	97. <u>  </u>	98. <u>  </u>	99. <u>  </u>	100. <u>  </u>	101. <u>  </u>	102. <u>  </u>	103. <u>  </u>
10th	104. <u>  </u>	105. <u>  </u>	106. <u>  </u>	107. <u>  </u>	108. <u>  </u>	109. <u>  </u>	110. <u>  </u>	111. <u>  </u>	112. <u>  </u>	113. <u>  </u>	114. <u>  </u>

## OCCUPANT INJURY CLASSIFICATION

Body Region	Specific Anatomic Structure	Level of Injury	Aspect
(1) Head		Specific injuries are assigned consecutive two-digit numbers beginning with 02.	(1) Right
(2) Face			(2) Left
(3) Neck	<u>Vessels, Nerves, Organs, Bones, Joints</u> are assigned consecutive two digit numbers beginning with 02.		(3) Bilateral
(4) Thorax			(4) Central
(5) Abdomen			(5) Anterior
(6) Spine			(6) Posterior
(7) Upper Extremity			(7) Superior
(8) Lower Extremity			(8) Inferior
(9) Unspecified	The exceptions to this rule apply to:		(9) Unknown
			(0) Whole region
<b>Type of Anatomic Structure</b>	<u>Whole Area</u>		
(1) Whole Area	(02) Skin - Abrasion		
(2) Vessels	(04) Skin - Contusion		
(3) Nerves	(06) Skin - Laceration		
(4) Organs (includes Muscles/ligaments)	(08) Skin - Avulsion		
(5) Skeletal (includes joints)	(10) Amputation		
(6) Head - LOC	(20) Burn		
(9) Skin	(30) Crush		
	(40) Degloving		
	(50) Injury - NFS		
	(90) Trauma, other than mechanical		
	<u>Head - LOC</u>		
	(02) Length of LOC		
	(04) Level		
	(06) of		
	(08) Consciousness		
	(10) Concussion		
	<u>Spine</u>		
	(02) Cervical		
	(04) Thoracic		
	(06) Lumbar		
		<b>Abbreviated Injury Scale</b>	
		(1) Minor Injury	
		(2) Moderate Injury	
		(3) Serious Injury	
		(4) Severe Injury	
		(5) Critical Injury	
		(6) Maximum (untreatable)	
		(7) Injured, unknown severity	
<b>SOURCE OF INJURY DATA</b>	<b>INJURY SOURCE CONFIDENCE LEVEL</b>	<b>DIRECT/INDIRECT INJURY</b>	
<u>OFFICIAL RECORDS</u>			
(1) Autopsy records with or without hospital/medical records	(1) Certain	(1) Direct contact injury	
(2) Hospital/medical records other than emergency room (e.g., discharge summary)	(2) Probable	(2) Indirect contact injury	
(3) Emergency room records only (including associated X-rays or other lab reports)	(3) Possible	(3) Noncontact injury	
(4) Private physician, walk-in or emergency clinic	(9) Unknown	(7) Injured, unknown source	
<u>UNOFFICIAL RECORDS</u>			
(5) Lay coroner report			
(6) E.M.S. personnel			
(7) Interviewee			
(8) Other source (specify):			
(9) Police			

## INJURY SOURCES

### FRONT

- (001) Windshield
- (002) Mirror
- (003) Sunvisor
- (004) Steering wheel rim
- (005) Steering wheel hub/spoke
- (006) Steering wheel (combination of codes 004 and 005)
- (007) Steering column, transmission selector lever, other attachment
- (008) Cellular telephone or CB radio
- (009) Add on equipment (e.g., tape deck, air conditioner)
- (010) Left instrument panel and below
- (011) Center instrument panel and below
- (012) Right instrument panel and below
- (013) Glove compartment door
- (014) Knee bolster
- (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)
- (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)
- (017) Windshield reinforced by exterior object (specify): \_\_\_\_\_
- (019) Other front object (specify): \_\_\_\_\_

### LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests
- (052) Left side hardware or armrest
- (053) Left A (A1/A2)-pillar
- (054) Left B-pillar
- (055) Other left pillar (specify): \_\_\_\_\_
- (056) Left side window glass
- (057) Left side window frame
- (058) Left side window sill
- (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (060) Other left side object (specify): \_\_\_\_\_

### RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests

- (102) Right side hardware or armrest
- (103) Right A (A1/A2)-pillar
- (104) Right B-pillar
- (105) Other right pillar (specify): \_\_\_\_\_
- (106) Right side window glass
- (107) Right side window frame
- (108) Right side window sill
- (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.
- (110) Other right side object (specify): \_\_\_\_\_

### INTERIOR

- (151) Seat, back support
- (152) Belt restraint webbing/buckle
- (153) Belt restraint B-pillar or door frame attachment point
- (154) Other restraint system component (specify): \_\_\_\_\_
- (155) Head restraint system
- (160) Other occupants (specify): \_\_\_\_\_
- (161) Interior loose objects
- (162) Child safety seat (specify): \_\_\_\_\_
- (163) Other interior object (specify): \_\_\_\_\_

### AIR BAG

- (170) Air bag-driver side
- (171) Air bag-driver side and eyewear
- (172) Air bag-driver side and jewelry
- (173) Air bag-driver side and object held
- (174) Air bag-driver side and object in mouth
- (175) Air bag compartment cover-driver side
- (176) Air bag compartment cover-driver side and eyewear
- (177) Air bag compartment cover-driver side and jewelry
- (178) Air bag compartment cover-driver side and object held
- (179) Air bag compartment cover-driver side and object in mouth
- (180) Air bag-passenger side
- (181) Air bag-passenger side and eyewear
- (182) Air bag-passenger side and jewelry

- (183) Air bag-passenger side and object held
- (184) Air bag-passenger side and object in mouth
- (185) Air bag compartment cover-passenger side
- (186) Air bag compartment cover-passenger side and eyewear
- (187) Air bag compartment cover-passenger side and jewelry
- (188) Air bag compartment cover-passenger side and object held
- (189) Air bag compartment cover-passenger side and object in mouth
- (190) Other air bag (specify) \_\_\_\_\_
- (195) Other air bag compartment cover (specify) \_\_\_\_\_

### ROOF

- (201) Front header
- (202) Rear header
- (203) Roof left side rail
- (204) Roof right side rail
- (205) Roof or convertible top

### FLOOR

- (251) Floor (including toe pan)
- (252) Floor or console mounted transmission lever, including console
- (253) Parking brake handle
- (254) Foot controls including parking brake

### REAR

- (301) Backlight (rear window)
- (302) Backlight storage rack, door, etc.
- (303) Other rear object (specify): \_\_\_\_\_

### ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration
- (402) Steering control devices (attached to OEM steering wheel)
- (403) Steering knob attached to steering wheel
- (405) Replacement steering wheel (i.e., reduced diameter)
- (406) Joy stick steering controls
- (407) Wheelchair tie-downs
- (408) Modification to seat belts, (specify): \_\_\_\_\_
- (409) Additional or relocated switches, (specify): \_\_\_\_\_

- (410) Raised roof

- (411) Wall mounted head rest (used behind wheel chair)
- (412) Other adaptive device (specify): \_\_\_\_\_

### EXTERIOR of OCCUPANT'S VEHICLE

- (451) Hood
- (452) Outside hardware (e.g., outside mirror, antenna)
- (453) Other exterior surface or tires (specify): \_\_\_\_\_
- (454) Unknown exterior objects

### EXTERIOR OF OTHER MOTOR VEHICLE

- (501) Front bumper
- (502) Hood edge
- (503) Other front of vehicle (specify): \_\_\_\_\_
- (504) Hood
- (505) Hood ornament
- (506) Windshield, roof rail, A-pillar
- (507) Side surface
- (508) Side mirrors
- (509) Other side protrusions (specify): \_\_\_\_\_
- (510) Rear surface
- (511) Undercarriage
- (512) Tires and wheels
- (513) Other exterior of other motor vehicle (specify): \_\_\_\_\_
- (514) Unknown exterior of other motor vehicle

### OTHER VEHICLE OR OBJECT IN THE ENVIRONMENT

- (551) Ground
- (598) Other vehicle or object (specify): \_\_\_\_\_
- (599) Unknown vehicle or object

### NONCONTACT INJURY

- (601) Fire in vehicle
- (602) Flying glass
- (603) Other noncontact injury source (specify): \_\_\_\_\_
- (604) Air bag exhaust gases
- (697) Injured, unknown source

# OFFICIAL INJURY DATA — SOFT TISSUE INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)

Restrained?

☐ No

☐ Yes

Blood Alcohol Level  
(mg/dl)

BAL = \_\_\_\_

Glasgow Coma  
Scale Score

GCSS = 8-9

Units of Blood  
Given

Units = NO

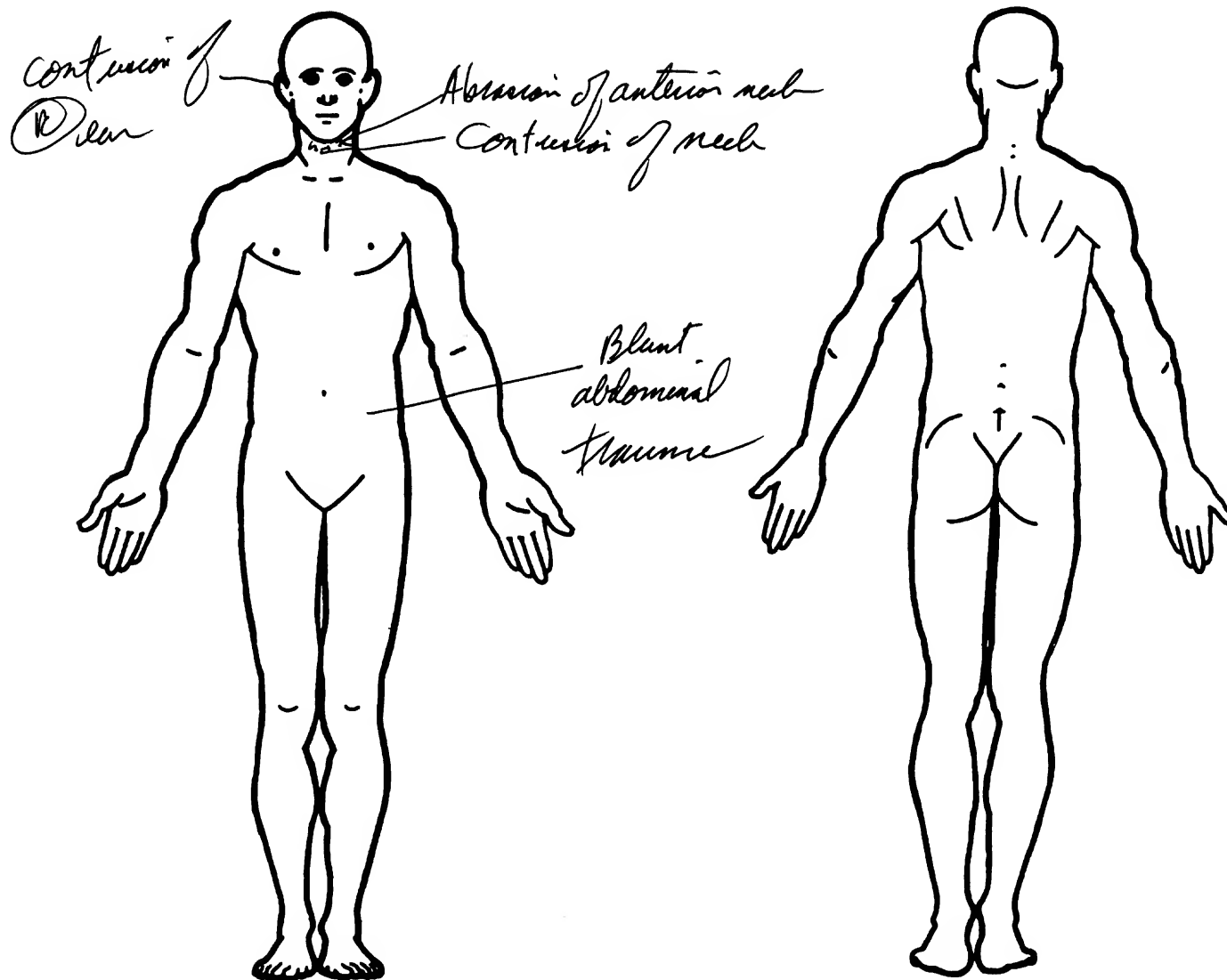
Arterial Blood Gases

pH = \_\_\_\_

PO<sub>2</sub> = \_\_\_\_

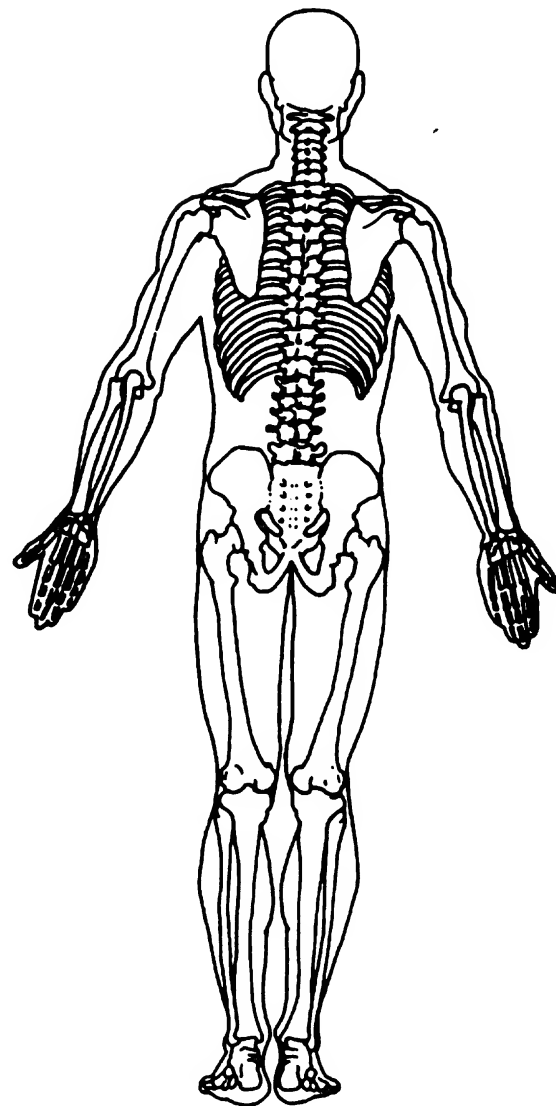
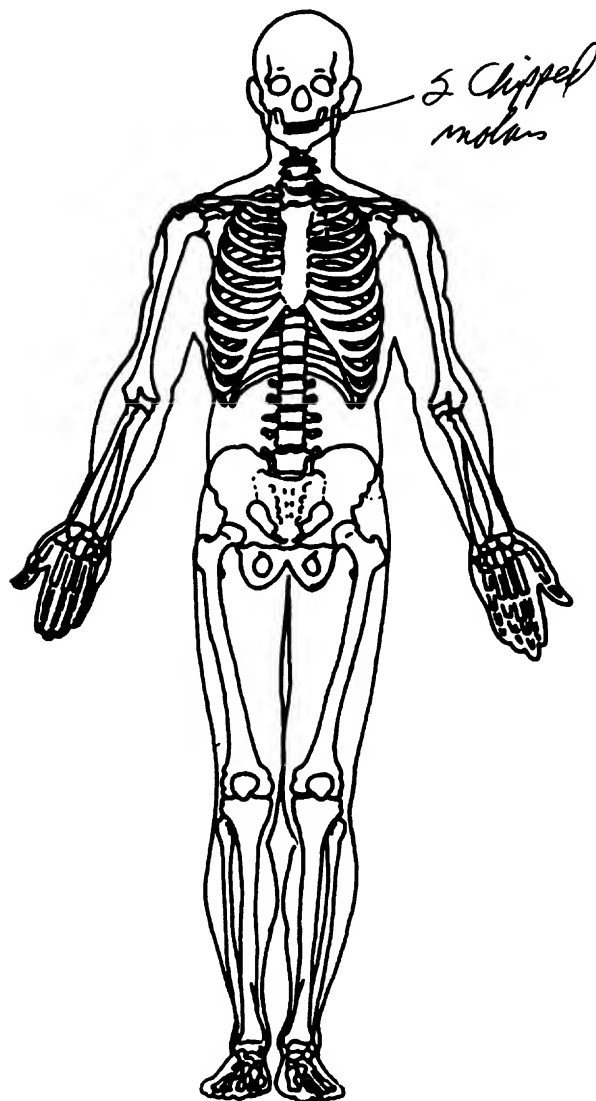
PCO<sub>2</sub> \_\_\_\_

HCO<sub>3</sub> \_\_\_\_



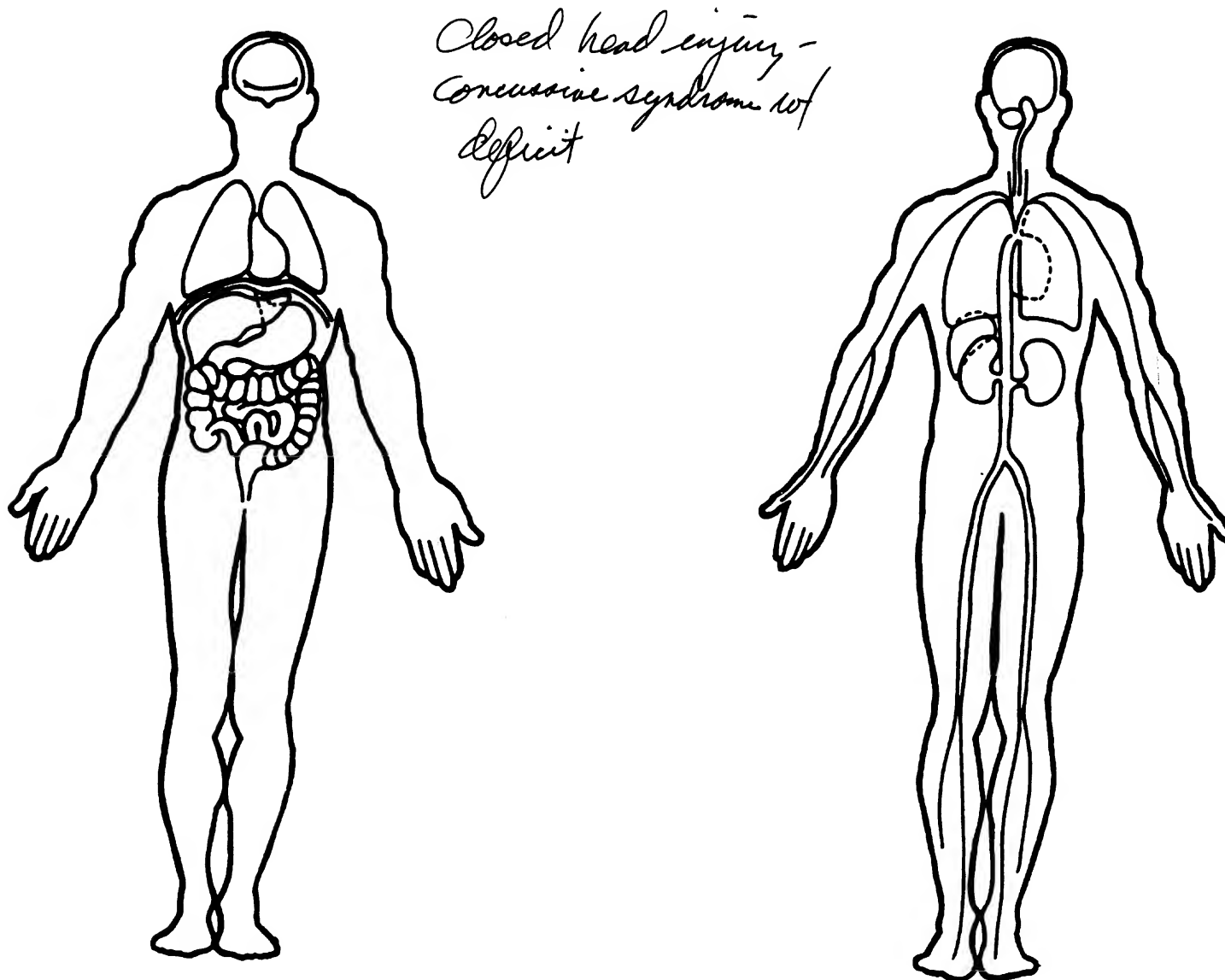
## OFFICIAL INJURY DATA — SKELETAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)



## OFFICIAL INJURY DATA – INTERNAL INJURIES

Indicate the Location, Specific Anatomic Structure, Detail (size, depth, fracture type, head injury clinical signs and neurological deficits), and Source of all injuries indicated by official sources (or from PAR or other unofficial sources if medical records and interviewee data are unavailable.)







# GENERAL VEHICLE FORM

1. Primary Sampling Unit Number \_\_\_\_\_  
2. Case Number - Stratum CA 96-11  
3. Vehicle Number 02

## VEHICLE IDENTIFICATION

4. Vehicle Model Year 94  
Code the last two digits of the model year  
(99) Unknown

5. Vehicle Make (specify): Lincoln  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(99) Unknown

6. Vehicle Model (specify): Towncar  
Applicable codes are found in your  
NASS Data Collection, Coding and  
Editing Manual.  
(999) Unknown

7. Body Type 04  
Note: Applicable codes may be found on  
the back of this page.

8. Vehicle Identification Number  
1LNCH81F3RY (Serial # omitted)  
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17  
Left justify; Slash zeros and letter Z (0 and Z)  
No VIN—Code all zeros  
Unknown—Code all nines

9. Vehicle Special Use (This Trip) 0  
(0) No special use  
(1) Taxi  
(2) Vehicle used as school bus  
(3) Vehicle used as other bus  
(4) Military  
(5) Police  
(6) Ambulance  
(7) Fire truck or car  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

## OFFICIAL RECORDS

10. Police Reported Vehicle Disposition 0  
(0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

11. Police Reported Travel Speed 999  
Code to the nearest kmph (NOTE: 000 means  
less than 0.5 kmph)  
(160) 159.5 kmph and above  
(999) Unknown

\_\_\_\_\_ mph X 1.6093 = \_\_\_\_\_ kmph

12. Speed Limit 056  
(000) No statutory limit  
Code posted or statutory speed limit in kmph  
(999) Unknown

\_\_\_\_\_ mph X 1.6093 = \_\_\_\_\_ kmph

13. Police Reported Alcohol Presence For Driver 7  
(0) No alcohol present  
(1) Yes alcohol present  
(7) Not reported  
(8) No driver present  
(9) Unknown

14. Alcohol Test Result For Driver 96  
Code actual value (decimal implied  
before first digit—0.xx)  
(95) Test refused  
(96) None given  
(97) AC test performed, results unknown  
(98) No driver present  
(99) Unknown

Source: \_\_\_\_\_

15. Police Reported Other Drug Presence For Driver 7  
(0) No other drug(s) present  
(1) Yes other drug(s) present  
(7) Not reported  
(8) No driver present  
(9) Unknown

16. Other Drug Specimen Test Result For Driver 0  
(0) No specimen test given  
(1) Drug(s) not found in specimen  
(2) Drug(s) found in specimen, (specify): \_\_\_\_\_  
(3) Specimen test given, results unknown or not  
obtained  
(8) No driver present  
(9) Unknown if specimen test given

17. Driver's Zip Code 19138  
(00001) Driver not a resident of U.S. or territories  
Code actual 5-digit zip code  
(99998) No driver present  
(99999) Unknown

18. Driver's Race/Ethnic Origin 2  
(1) White (non-Hispanic)  
(2) Black (non-Hispanic)  
(3) White (Hispanic)  
(4) Black (Hispanic)  
(5) American Indian, Eskimo or Aleut  
(6) Asian or Pacific Islander  
(7) Other (specify): \_\_\_\_\_  
(8) No driver present  
(9) Unknown

**PRECRASH ENVIRONMENTAL DATA****19. Relation To Interchange Or Junction** 0

- (0) Non-interchange area and non-junction  
(1) Interchange area related

*Non-Interchange junctions*

- (2) Intersection related  
(3) Driveway, alley access related  
(4) Other junction (specify) \_\_\_\_\_

(5) Unknown type of junction \_\_\_\_\_

(9) Unknown

**20. Trafficway Flow** 0

- (0) Not physically divided (two way traffic)  
(1) Divided trafficway-median strip without positive barrier  
(2) Divided trafficway-median strip with positive barrier  
(3) One way traffic  
(9) Unknown

**21. Number Of Travel Lanes** 4

- (1) One  
(2) Two  
(3) Three  
(4) Four  
(5) Five  
(6) Six  
(7) Seven or more  
(9) Unknown

**22. Roadway Alignment** 1

- (1) Straight  
(2) Curve right  
(3) Curve left  
(9) Unknown

**23. Roadway Profile** 1

- (1) Level  
(2) Uphill grade (> 2%)  
(3) Hill crest  
(4) Downhill grade (> 2%)  
(5) Sag  
(9) Unknown

**24. Roadway Surface Type** 2

- (1) Concrete  
(2) Bituminous (asphalt)  
(3) Brick or block  
(4) Slag, gravel, or stone  
(5) Dirt  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

**25. Roadway Surface Condition** 1

- (1) Dry  
(2) Wet  
(3) Snow or slush  
(4) Ice  
(5) Sand, dirt, or oil  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

**26. Light Conditions** 1

- (1) Daylight  
(2) Dark  
(3) Dark, but lighted  
(4) Dawn  
(5) Dusk  
(9) Unknown

**27. Atmospheric Conditions** 0

- (0) No adverse atmospheric-related driving conditions  
(1) Rain  
(2) Sleet/hail  
(3) Snow  
(4) Fog  
(5) Rain and fog  
(6) Sleet and fog  
(7) Other (e.g., smog, smoke, blowing sand or dust, etc.) (specify): \_\_\_\_\_  
(9) Unknown

**28. Traffic Control Device** 0

- (0) No traffic control(s)  
(1) Traffic control signal (not RR crossing)

*Regulatory*

- (2) Stop sign  
(3) Yield sign  
(4) School zone sign  
(5) Other regulatory sign (specify): \_\_\_\_\_

(6) Warning sign (not RR crossing) \_\_\_\_\_

(7) Unknown sign

(8) Miscellaneous/other controls including RR controls (specify): \_\_\_\_\_

(9) Unknown

**29. Traffic Control Device Functioning** 0

- (0) No traffic control device  
(1) Traffic control device not functioning (specify): \_\_\_\_\_  
(2) Traffic control device functioning properly  
(9) Unknown

**PRECRASH DRIVER RELATED DATA**

30. Driver's Distraction/Inattention To Driving (Prior To Recognition Of Critical Event) 42
- (00) No driver present
- (01) Attentive or not distracted
- (02) Looked but did not see
- Distractions*
- (03) By other occupant(s), (specify): \_\_\_\_\_
- (04) By moving object in vehicle (specify): \_\_\_\_\_
- (05) While talking or listening to cellular phone (specify location and type of phone): \_\_\_\_\_
- (06) While dialing cellular phone (specify location and type of phone): \_\_\_\_\_
- (07) While adjusting climate controls
- (08) While adjusting radio, cassette, CD (specify): \_\_\_\_\_
- (09) While using other device/controls integral to vehicle (specify): \_\_\_\_\_
- (10) While using or reaching for device/object brought into vehicle (specify): \_\_\_\_\_
- (11) Sleepy or fell asleep
- (12) Distracted by outside person, object, or event (specify): Approaching Police vehicle
- (13) Eating or drinking light beer
- (14) Smoking related
- (97) Distracted/inattentive, details unknown
- (98) Other, distraction (specify): \_\_\_\_\_
- (99) Unknown

31. Pre-Event Movement (Prior to Recognition of Critical Event) 02
- (00) No driver present
- (01) Going straight
- (02) Decelerating in traffic lane
- (03) Accelerating in traffic lane
- (04) Starting in traffic lane
- (05) Stopped in traffic lane
- (06) Passing or overtaking another vehicle
- (07) Disabled or parked in travel lane
- (08) Leaving a parking position
- (09) Entering a parking position
- (10) Turning right
- (11) Turning left
- (12) Making a U-turn
- (13) Backing up (other than for parking position)
- (14) Negotiating a curve
- (15) Changing lanes
- (16) Merging
- (17) Successful avoidance maneuver to a previous critical event
- (97) Other (specify): \_\_\_\_\_
- (99) Unknown

32. Critical Precrash Event 53**THIS VEHICLE LOSS OF CONTROL DUE TO:**

- (01) Blow out or flat tire
- (02) Stalled engine
- (03) Disabling vehicle failure (e.g., wheel fell off) (specify): \_\_\_\_\_
- (04) Non-disabling vehicle problem (e.g., hood flew up) (specify): \_\_\_\_\_
- (05) Poor road conditions (puddle, pot hole, ice, etc.) (specify): \_\_\_\_\_
- (06) Traveling too fast for conditions
- (08) Other cause of control loss (specify): \_\_\_\_\_
- (09) Unknown cause of control loss

**THIS VEHICLE TRAVELLING**

- (10) Over the lane line on left side of travel lane
- (11) Over the lane line on right side of travel lane
- (12) Off the edge of the road on the left side
- (13) Off the edge of the road on the right side
- (14) End departure
- (15) Turning left at intersection
- (16) Turning right at intersection
- (17) Crossing over (passing through) intersection
- (18) This vehicle decelerating
- (19) Unknown travel direction

**OTHER MOTOR VEHICLE IN LANE**

- (50) Other vehicle stopped
- (51) Traveling in same direction with lower steady speed
- (52) Traveling in same direction while decelerating
- (53) Traveling in same direction with higher speed
- (54) Traveling in opposite direction
- (55) In crossover
- (56) Backing
- (59) Unknown travel direction of other motor vehicle in lane

**OTHER MOTOR VEHICLE ENCROACHING INTO LANE**

- (60) From adjacent lane (same direction)—over left lane line
- (61) From adjacent lane (same direction)—over right lane line
- (62) From opposite direction—over left lane line
- (63) From opposite direction—over right lane line
- (64) From parking lane
- (65) From crossing street, turning into same direction
- (66) From crossing street, across path
- (67) From crossing street, turning into opposite direction
- (68) From crossing street, intended path not known
- (70) From driveway, turning into same direction
- (71) From driveway, across path
- (72) From driveway, turning into opposite direction
- (73) From driveway, intended path not known
- (74) From entrance to limited access highway
- (78) Encroachment by other vehicle—details unknown

**PEDESTRIAN, PEDALCYCLIST, OR OTHER NONMOTORIST**

- (80) Pedestrian in roadway
- (81) Pedestrian approaching roadway
- (82) Pedestrian—unknown location
- (83) Pedalcyclist or other nonmotorist in roadway (specify): \_\_\_\_\_
- (84) Pedalcyclist or other nonmotorist approaching roadway, (specify): \_\_\_\_\_
- (85) Pedalcyclist or other nonmotorist—unknown location (specify): \_\_\_\_\_

**OBJECT OR ANIMAL**

- (87) Animal in roadway
- (88) Animal approaching roadway
- (89) Animal—unknown location
- (90) Object in roadway
- (91) Object approaching roadway
- (92) Object—unknown location
- (98) Other critical precrash event (specify): \_\_\_\_\_
- (99) Unknown

33. Attempted Avoidance Maneuver 01

- (00) No driver present
- (01) No avoidance maneuver
- (02) Braking (no lockup)
- (03) Braking (lockup)
- (04) Braking (lockup unknown)
- (05) Releasing brakes
- (06) Steering left
- (07) Steering right
- (08) Braking and steering left
- (09) Braking and steering right
- (10) Accelerating
- (11) Accelerating and steering left
- (12) Accelerating and steering right
- (98) Other action (specify): \_\_\_\_\_

(99) Unknown

34. Pre-Impact Stability 1

- (0) No driver present
- (1) Tracking
- (2) Skidding longitudinally—rotation less than 30 degrees
- (3) Skidding laterally—clockwise rotation
- (4) Skidding laterally—counterclockwise rotation
- (7) Other vehicle loss-of-control (specify): \_\_\_\_\_

(9) Precrash stability unknown

35. Pre-Impact Location 1

- (0) No driver present
- (1) Stayed in original travel lane
- (2) Stayed on roadway but left original travel lane
- (3) Stayed on roadway, not known if left original travel lane
- (4) Departed roadway
- (5) Remained off roadway
- (6) Returned to roadway
- (7) Entered roadway
- (9) Unknown

36. Accident Type 21

(Note: Applicable codes on back of this page)

- (00) No impact  
Code the number of the diagram that best describes the accident circumstance
- (98) Other accident type (specify): \_\_\_\_\_

(99) Unknown

**STOP HERE IF GV07 DOES NOT EQUAL 01 - 49**

## OCCUPANT RELATED

37. Driver Presence in Vehicle 1  
(0) Driver not present  
(1) Driver present  
(9) Unknown
38. Number of Occupants This Vehicle 01  
(00-96) Code actual number of occupants for this vehicle  
(97) 97 or more  
(99) Unknown
39. Number of Occupant Forms Submitted 01

## AIR BAG RELATED

40. Is this an AOPS Vehicle? 1  
(0) No (includes unknown)  
(1) Yes - researcher determined  
(2) VIN determined air bag system  
(3) VIN determined automatic (passive) belts  
(4) VIN determined air bag and automatic (passive) belts
41. Air Bag(s) Deployment, First Seat Frontal 1  
(0) Not equipped or not available  
(1) No air bags deployed  
*Single Air Bag Vehicle*  
(2) Driver air bag deployed  
(3) Driver air bag, unknown if deployed  
*Multiple Air Bag Vehicle*  
(4) Driver side only deployed  
(5) Passenger side only deployed  
(6) Driver and passenger side deployed  
(7) Driver and passenger side unknown if deployed  
(8) Air bag(s) deployed, details unknown  
(9) Unknown
42. Air Bag(s) Deployment, Other Than First Seat Frontal 0  
(0) Not equipped with an "other" air bag  
(1) Deployed during accident (as a result of impact)  
(2) Deployed inadvertently just prior to accident  
(3) Deployed, details unknown  
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(5) Unknown if deployed  
(7) Nondeployed  
(9) Unknown

Specify type of "other" air bag present: \_\_\_\_\_

## VEHICLE WEIGHT ITEMS

43. Vehicle Curb Weight 1830  
Code weight to nearest 10 kilograms.  
(045) Less than 454 kilograms  
(612) 6,124 kilograms or more  
(999) Unknown  
\_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs  
Source: \_\_\_\_\_

44. Vehicle Cargo Weight 0  
Code weight to nearest 10 kilograms.  
(000) Less than 5 kilograms  
(454) 4,536 kilograms or more  
(999) Unknown  
\_\_\_\_\_ lbs X .4536 = \_\_\_\_\_ kgs  
Source: \_\_\_\_\_

## ROLLOVER DATA

45. Rollover 02  
(00) No rollover (no overturning)  
*Rollover (primarily about the longitudinal axis)*  
(01-16) Code the number of quarter turns  
(17) Rollover, 17 or more quarter turns (specify): \_\_\_\_\_  
(98) Rollover--end-over-end (i.e., primarily about the lateral axis)  
(99) Rollover (overturn), details unknown
46. Rollover Initiation Type 02  
(00) No rollover  
(01) Trip-over  
(02) Flip-over  
(03) Turn-over  
(04) Climb-over  
(05) Fall-over  
(06) Bounce-over  
(07) Collision with another vehicle  
(08) Other rollover initiation type specify): \_\_\_\_\_  
(98) Rollover--end-over-end  
(99) Unknown rollover initiation type
47. Location of Rollover Initiation 0  
(0) No rollover  
(1) On roadway  
(2) On shoulder--paved  
(3) On shoulder--unpaved  
(4) On roadside or divided trafficway median  
(8) Rollover--end-over-end  
(9) Unknown
48. Rollover Initiation Object Contacted 02  
(Note: Applicable codes on back of page)
49. Location on Vehicle Where Initial Principal Tripping Force Is Applied 0  
(0) No rollover  
(1) Wheels/tires  
(2) Side plane  
(3) End plane  
(4) Undercarriage  
(5) Other location on vehicle (specify): \_\_\_\_\_  
(6) Non-contact rollover forces (specify): \_\_\_\_\_  
(8) Rollover--end-over-end  
(9) Unknown
50. Direction of Initial Roll 0  
(0) No rollover  
(1) Roll right - primarily about the longitudinal axis  
(2) Roll left - primarily about the longitudinal axis  
(8) Rollover--end-over-end  
(9) Unknown roll direction

**VERRIDE/UNDERRIDE (THIS VEHICLE)**

51. Front Override/Underride (this Vehicle) 4
52. Rear Override/Underride (this Vehicle) 1
- (0) No override/underride, or not an end-to-end impact between two CDS applicable vehicles, and no medium/heavy truck or bus underride

*Override (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (1) 1st CDC
- (2) 2nd CDC
- (3) Other not automated CDC (specify): \_\_\_\_\_

*Underride (see specific CDC)**[Between 2 CDS applicable vehicles (Bodytype, GV07 = 1-49)]*

- (4) 1st CDC
- (5) 2nd CDC
- (6) Other not automated CDC (specify): \_\_\_\_\_

- (7) Medium/heavy truck or bus override (of any configuration)
- (9) Unknown

**HEADING ANGLE AT IMPACT FOR HIGHEST DELTA V**

Values: (000)-(359) Code actual value

(996) Non-horizontal impact

(997) Noncollision

(998) Impact with object

(999) Unknown

53. Heading Angle For This Vehicle 000
54. Heading Angle For Other Vehicle 000

**RECONSTRUCTION DATA**

55. Towed Trailing Unit 1
- (0) No towed unit
- (1) Yes—towed trailing unit
- (9) Unknown
56. Documentation of Trajectory Data for This Vehicle 1
- (0) No
- (1) Yes
57. Post Collision Condition of Tree or Pole (For Highest Delta V) 0
- (0) Not collision (for highest delta V) with tree or pole
- (1) Not damaged
- (2) Cracked/sheared
- (3) Tilted <45 degrees
- (4) Tilted ≥45 degrees
- (5) Uprooted tree
- (6) Separated pole from base
- (7) Pole replaced
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**ACCIDENT RECONSTRUCTION PROGRAMS HIGHEST DELTA V**

58. Basis for Total (Resultant) Delta V (highest) 02

(00) No vehicle inspection

*Delta V Calculated*

- (01) Reconstruction program—damage only routine
- (02) Reconstruction program—damage and trajectory routine
- (03) Missing vehicle algorithm

*Delta V Not Calculated*

- (04) At least one vehicle (which may be this vehicle) is beyond the scope of an acceptable reconstruction program, regardless of collision conditions.

*All vehicles within scope (CDC applicable) of reconstruction program but one of the collision conditions is beyond the scope of the reconstruction program or other acceptable reconstruction technique, regardless of adequacy of damage data.*

- (05) Rollover
- (06) Other non-horizontal forces
- (07) Sideswipe type damage
- (08) Severe override
- (09) Yielding object
- (10) Overlapping damage
- (11) All vehicle and collision conditions are within scope of one of the acceptable reconstruction programs, but there is insufficient data available, (specify): \_\_\_\_\_

- (98) Other, (specify): \_\_\_\_\_



## COMPUTER GENERATED CRASH SEVERITY

59. Total Delta V Highest010

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

60. Longitudinal Component of Delta V Highest010

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than  
-0.5 kmph and less than +0.5 kmph)

(+160) ±159.5 kmph and above

(\_\_999) Unknown

61. Lateral Component of Delta V Highest000

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: \_\_000 means greater than -0.5 kmph and  
less than +0.5 kmph)

(+160) ±159.5 kmph and above

(\_\_999) Unknown

62. Energy Absorption Highest9300

\_\_\_\_ Nearest 100 joules (highest)

\_\_\_\_ Nearest 100 joules (secondary)

(NOTE: 0000 means less than 50 joules)

(9997) 999,650 joules or more

(9999) Unknown

63. Impact Speed Highest000

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(998) Trajectory algorithm not run

(999) Unknown

## DELTA V CONFIDENCE LEVEL

64. Confidence In Reconstruction Program  
Results (For Highest Delta V)

(0) No reconstruction

(1) Collision fits model — results appear  
reasonable

(2) Collision fits model — results appear high

(3) Collision fits model — results appear low

(4) Borderline reconstruction — results appear  
reasonable

## OTHER SPEED ESTIMATE

65. Barrier Equivalent Speed Highest010

\_\_\_\_ Nearest kmph (highest)

\_\_\_\_ Nearest kmph (secondary)

(NOTE: 000 means

less than 0.5 kmph)

(160) 159.5 kmph and above

(999) Unknown

ESTIMATED DELTA V	INSPECTION TYPE
<p>66. Estimated Highest Delta V (Researcher Determined) <u>2</u></p> <p>(0) Reconstruction Delta V coded</p> <p><i>Estimated Delta V</i></p> <p>(1) Less than 10 kmph</p> <p>(2) <math>\geq 10</math> kmph but <math>&lt; 25</math> kmph</p> <p>(3) <math>\geq 25</math> kmph but <math>&lt; 40</math> kmph</p> <p>(4) <math>\geq 40</math> kmph but <math>&lt; 55</math> kmph</p> <p>(5) <math>\geq 55</math> kmph</p> <p><i>Other estimates of damage severity</i></p> <p>(6) Minor</p> <p>(7) Moderate</p> <p>(8) Severe</p> <p>(9) Unknown</p>	<p>67. Type of Vehicle Inspection <u>3</u></p> <p>(0) No inspection</p> <p>(1) Vehicle fully repaired-no damage evident</p> <p>(2) Partial inspection (specify): _____</p> <p>(3) Complete inspection</p> <p><b>DELTA V EVENT NUMBER</b></p> <p>68. Delta V Event Number <u>1</u></p> <p>_____ Code the accident event sequence number that resulted in the Delta V that has been coded above for this vehicle</p> <p>(99) Unknown</p>

\*\*\* IF THE CDS APPLICABLE VEHICLE WAS NOT INSPECTED (I.E., GV67 = 0), \*\*\*

DO NOT COMPLETE THE EXTERIOR AND INTERIOR VEHICLE FORMS

\*\*\* IF GV07 DOES NOT EQUAL 01-49, DO NOT COMPLETE \*\*\*

THE EXTERIOR VEHICLE, INTERIOR VEHICLE,  
OCCUPANT ASSESSMENT, AND OCCUPANT INJURY FORMS.

## EXTERIOR VEHICLE FORM

**NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM**

1. Primary Sampling Unit Number _____ 2. Case Number - Stratum <u>CA 96-11</u>		3. Vehicle Number <u>02</u>
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## VEHICLE IDENTIFICATION

VIN 1 L N C M 8 1 F 3 R Y Serial # Omitted Model Year 9 4  
Vehicle Make (specify): Lincoln Vehicle Model (specify): Town Car

## LOCATOR

Locate the end of the damage with respect to the vehicle's damaged center point or bumper corner for end impacts or an undamaged axle for side impacts.

Specific Impact No.	Location of Direct Damage	Location of Field L	Location of Max Crush
	<i>Vegetation (R) Near Core</i>	<i>Entire Rem. Plane</i>	<i>C6</i>

### CRUSH PROFILE IN CENTIMETERS

NOTES: Identify the plane at which the C-measurements are taken (e.g., at bumper, above bumper, at sill, above sill, etc.) and label adjustments (e.g., free space).

Measure C1 to C6 from driver to passenger side in front or rear impacts and rear to front in side impacts.

Free space value is defined as the distance between the baseline and the original body contour taken at the individual C locations. This may include the following: bumper lead, bumper taper, side protrusion, side taper, etc. Record the value for each C-measurement and maximum crush.

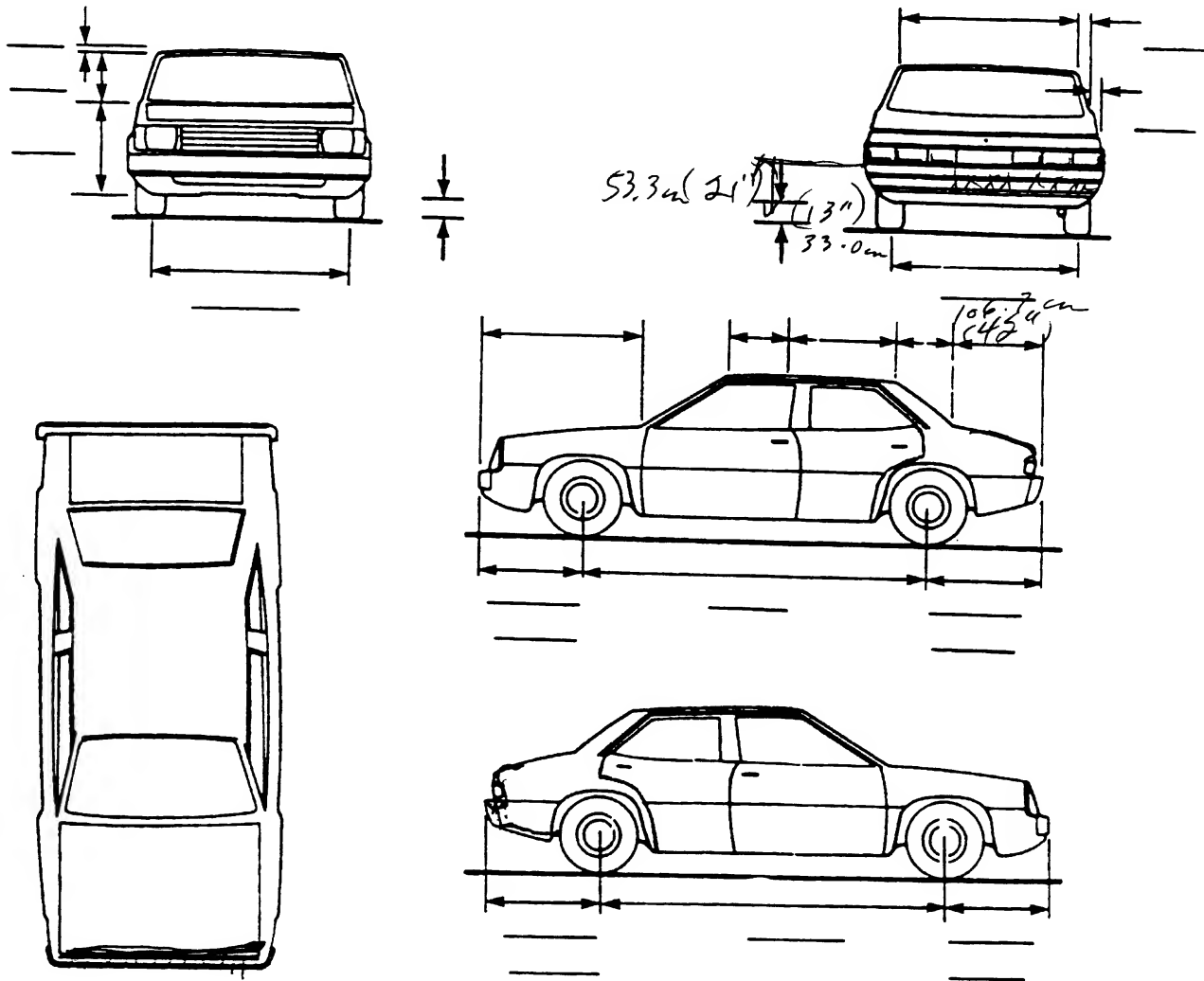
Use as many lines/columns as necessary to describe each damage profile.

[illegible]

## VEHICLE DAMAGE SKETCH

<b>TIRE—WHEEL DAMAGE</b> a. Rotation physically restricted RF <u>2</u> LF <u>/</u> RR <u>/</u> LR <u>/</u> (1) Yes (2) No (8) NA (9) Unk.	<b>ORIGINAL SPECIFICATIONS</b> Wheelbase <u>298.2</u> cm Overall Length <u>556.0</u> cm Maximum Width <u>195.3</u> cm Curb Weight <u>1832.1</u> kg Average Track <u>160.1</u> cm Front Overhang _____ cm Rear Overhang _____ cm Undeformed End Width <u>(66")/67.64</u> cm Engine Size: cyl./displ. <u>4, 6</u> L	<b>WHEEL STEER ANGLES</b> (For locked front wheels or displaced rear axles only) RF ± _____ ° LF ± _____ ° RR ± _____ ° LR ± _____ ° Within ± 5 degrees
<b>TYPE OF TRANSMISSION</b> <input type="checkbox"/> Manual <input checked="" type="checkbox"/> Automatic <b>END SHIFT ≥ 10 CM</b> <input type="checkbox"/> Yes <input type="checkbox"/> No		<b>DRIVE WHEELS</b> <input type="checkbox"/> FWD <input checked="" type="checkbox"/> RWD <input type="checkbox"/> 4WD <b>Approximate Cargo Weight</b> _____ kg

## MEASUREMENTS IN CENTIMETERS



NOTES: Sketch new perimeter and cross hatch direct damage and single hatch induced damage on all views. Annotate observations which might be useful in reconstructing the accident (e.g., grass in tire bead, direction of striations, scuff on sidewalls, etc.). If pulling trailer, sketch type of trailer and damage received on the back of this page.

Annotate any damage caused by extrication such as component removal by torching, prying, or hydraulic shears.

## CODES FOR OBJECT CONTACTED

(57) Fence

(58) Wall

- (59) Building  
(60) Ditch or culvert  
(61) Ground  
(62) Fire hydrant  
(63) Curb  
(64) Bridge

(68) Other fixed object (specify):

(69) Unknown fixed object

### Collision with Nonfixed Object

(70) Passenger car, light truck, van, or other vehicle not in-transport

- (71) Medium/heavy truck or bus not in-transport  
(72) Pedestrian  
(73) Cyclist or cycle  
(74) Other nonmotorist or conveyance

(75) Vehicle occupant

(76) Animal

- (77) Train  
(78) Trailer, disconnected in transport  
(79) Object fell from vehicle in-transport  
(88) Other nonfixed object (specify):

(89) Unknown nonfixed object

- (98) Other event (specify):

(99) Unknown event or object

[illegible]

## COLLISION DEFORMATION CLASSIFICATION

## HIGHEST DELTA "V"

Accident Event Sequence Number	Object Contacted	(1) (2) Direction of Force	(3) Deformation Location	(4) Longitudinal or Lateral Location	(5) Vertical or Lateral Location	(6) Type of Damage Distribution	(7) Deformation Extent
4. <u>01</u>	5. <u>01</u>	6. <u>06</u>	7. <u>B</u>	8. <u>Z</u>	9. <u>E</u>	10. <u>W</u>	11. <u>01</u>

## Second Highest Delta "V"

12. \_\_\_\_\_ 13. \_\_\_\_\_ 14. \_\_\_\_\_ 15. \_\_\_\_\_ 16. \_\_\_\_\_ 17. \_\_\_\_\_ 18. \_\_\_\_\_ 19. \_\_\_\_\_

## CRUSH PROFILE IN CENTIMETERS

The crush profile for the damage described in the CDC(s) above should be documented in the appropriate space below. (ALL MEASUREMENTS ARE IN CENTIMETERS.)

## HIGHEST DELTA "V"

20. L	21. C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	22. ± D
<u>168</u>	<u>007</u>	<u>002</u>	<u>000</u>	<u>001</u>	<u>003</u>	<u>004</u>	<u>028</u>

## Second Highest Delta "V"

23. L	24. C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	25. ± D
_____	_____	_____	_____	_____	_____	_____	_____

26. Undeformed End Width  
(Coded when highest severity impact is an end plane impact.)  
\_\_\_\_\_ Code to the nearest centimeter  
(250) 250 centimeters or more  
(998) No highest severity end plane impact  
(999) Unknown

168

27. Direct Damage Width  
(For highest severity impact)  
\_\_\_\_\_ Code to the nearest centimeter  
(250) 250 centimeters or more  
(999) Unknown

112

28. Original Wheelbase  
\_\_\_\_\_ Code to the nearest centimeter  
(650) 650 centimeters or more  
(999) Unknown  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

298

29. Original Average Track Width  
\_\_\_\_\_ Code to the nearest centimeter  
(185) 185 centimeters or more  
(999) Unknown  
\_\_\_\_\_ inches X 2.54 = \_\_\_\_\_ centimeters

160



30. Are CDCs Documented  
but Not Coded on The  
Automated File?

- (0) No  
(1) Yes

0

31. Researcher's Assessment of Vehicle  
Disposition

- (0) Not towed due to vehicle damage  
(1) Towed due to vehicle damage  
(9) Unknown

0

32. Is This A Multi-Stage Manufactured Vehicle  
And/Or A Certified Altered Vehicle?

- (0) No post manufacturer modifications  
(1) Yes - post manufacturer modifications  
(specify): \_\_\_\_\_

0

(Include photograph of CERTIFICATION  
PLACARD in case report)

- (9) Unknown if vehicle is modified

### FIRE OCCURRENCE

33. Fire Occurrence

- (0) No fire

Yes, fire occurred

- (1) Minor  
(2) Major  
(9) Unknown

0

34. Origin of Fire

- (0) No fire  
(1) Vehicle exterior (front, side, back, top)  
(2) Exhaust system  
(3) Fuel tank (and other fuel retention  
system parts)  
(4) Engine compartment  
(5) Cargo/trunk compartment  
(6) Instrument panel  
(7) Passenger compartment area  
(8) Other location (specify): \_\_\_\_\_

0

- (9) Unknown

### FUEL SYSTEM

35. Location of Fuel Tank-1 Filler Cap

2

36. Location of Fuel Tank-2 Filler Cap

0

- (0) No fuel tank  
(1) On back plane  
(2) Aft of center of the rear wheels (rear axle)  
on left side plane  
(3) Aft of center of the rear wheels (rear axle)  
on right side plane  
(4) Forward of center of the rear wheels (rear  
axle) on left side plane  
(5) Forward of center of the rear wheels (rear  
axle) on right side plane  
(6) Over the center of the rear wheels (rear  
axle) on left side plane  
(7) Over the center of the rear wheels (rear  
axle) on right side plane  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

37. Type of Fuel Tank-1

1

38. Type of Fuel Tank-2

0

- (0) No fuel tank (electrical vehicle)  
(1) Metallic  
(2) Non-metallic  
(9) Unknown

39. Location of Fuel Tank-1

4

40. Location of Fuel Tank-2

0

- (0) No fuel tank  
(1) Aft of center of the rear wheels (rear axle)  
centered  
(2) Aft of center of the rear wheels (rear axle)  
left side  
(3) Aft of center of the rear wheels (rear axle)  
right side  
(4) Forward of center of the rear wheels (rear  
axle) centered  
(5) Forward of center of the rear wheels (rear  
axle) left side  
(6) Forward of center of the rear wheels (rear  
axle) right side  
(7) Over center of the rear wheels (rear axle)  
(8) Other (specify): \_\_\_\_\_  
(9) Unknown

41. Damage to Fuel Tank-1

1

42. Damage to Fuel Tank-2

0

- (0) No fuel tank  
(1) No damage to fuel tank  
(2) Deformed, no seam failure  
(3) Deformed, with a seam failure  
(4) Punctured  
(5) Lacerated (ripped)  
(6) Abraded (scraped)  
(7) Filler neck separation from the fuel tank  
(8) Other damage (specify): \_\_\_\_\_  
(9) Unknown

43. Leakage Location of Fuel System-1

1

44. Leakage Location of Fuel System-2

0

(0) No fuel tank

(1) No fuel leakage

*Primary Area Of Leakage*

(2) Tank

(3) Filler neck

(4) Cap

(5) Lines/pump/filter

(6) Vent/emission recovery

(8) Other (specify): \_\_\_\_\_

(9) Unknown

45. Fuel Type-1

0 1

46. Fuel Type-2

00*Single Fuel Type*

(00) No fuel tank

(01) Gasoline

(02) Diesel

(03) CNG (Compressed Natural Gas)

(04) LPG (Liquid Petroleum Gas) also known as Propane

(05) LNG (Liquid Natural Gas)

(06) Methanol (M100 or M85)

(07) Ethanol (E100 or E85)

(08) Other (Hydrogen or others) (specify): \_\_\_\_\_

*Electric Powered or Electric/Solar Powered Vehicles*

(10) Lead Acid Battery

(11) Nickel-Iron Battery

(12) Nickel-Cadmium Battery

(13) Sodium Metal Chloride Battery

(14) Sodium Sulfur Battery

(18) Other (Specify): \_\_\_\_\_

(98) Other Hybrid (specify): \_\_\_\_\_

(99) Unknown fuel type

47. Is This Vehicle Equipped With More Than Two Fuel Tanks?

0

(0) No (one or two tanks only)

*Yes - More Than Two Tanks*(1) Yes -- no damage to any tank or filler cap and no fuel system leakage(2) Yes -- no damage to any tank or filler cap but there is fuel system leakage (specify leakage location): \_\_\_\_\_(3) Yes -- damage to an additional tank or filler cap and there is fuel system leakage (specify the following):

Type of tank \_\_\_\_\_

Tank location \_\_\_\_\_

Filler cap location \_\_\_\_\_

Tank damage \_\_\_\_\_

Location of leakage \_\_\_\_\_

Type of fuel \_\_\_\_\_

(9) Unknown if more than two tanks

**COMMENTS**


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\*\*\* STOP: IF THE CDS APPLICABLE VEHICLE WAS NOT TOWED \*\*\*

(GV10=0)

DO NOT COMPLETE THE INTERIOR VEHICLE FORM.



# INTERIOR VEHICLE FORM

1. Primary Sampling Unit Number           

2. Case Number - Stratum CA 96-11

3. Vehicle Number 02

## INTEGRITY

4. Passenger Compartment Integrity 00

(00) No integrity loss

Yes, Integrity Was Lost Through

(01) Windshield

(02) Door (side)

(03) Door/hatch (back door)

(04) Roof

(05) Roof glass

(06) Side window

(07) Rear window (backlight)

(08) Roof and roof glass

(09) Windshield and door (side)

(10) Windshield and roof

(11) Side and rear window (side window and backlight)

(12) Windshield and side window

(13) Door and side window

(98) Other combination of above (specify):

(99) Unknown

Door, Tailgate or Hatch Opening

5. LF 1 6. RF 1 7. LR 1 8. RR 1 9. TG/H 0

(0) No door/gate/hatch

(1) Door/gate/hatch remained closed and operational

(2) Door/gate/hatch came open during collision

(3) Door/gate/hatch jammed shut

(8) Other (specify):

(9) Unknown

Damage/Failure Associated with Door, Tailgate or Hatch Opening in Collision. If IV05-IV09 ≠ 2, Then code 0

10. LF 0 11. RF 0 12. LR 0 13. RR 0 14. TG/H 0

(0) No door/gate/hatch or door not opened

Door, Tailgate or Hatch Came Open During Collision

(1) Door operational (no damage)

(2) Latch/striker failure due to damage

(3) Hinge failure due to damage

(4) Door structure failure due to damage

(5) Door support (i.e., pillar, sill, roof side rail, etc.) failure due to damage

(6) Latch/striker and hinge failure due to damage

(8) Other failure (specify):

(9) Unknown

## GLAZING

Type of Window/Windshield Glazing

15. WS 1 16. LF 2 17. RF 2 18. LR 2 19. RR 2

20. BL 2 21. Roof 0 22. Other 2

(0) No glazing

(1) AS-1 — Laminated

(2) AS-2 — Tempered

(3) AS-3 — Tempered-tinted (original)

(4) AS-2 — Tempered-with after market tint

(5) AS-3 — Tempered-tinted (with additional after market tint)

(6) AS-14 — Glass/Plastic

(7) Glazing removed prior to accident

(8) Other (specify):

(9) Unknown

Window Precrash Glazing Status

23. WS 1 24. LF 4 25. RF 2 26. LR 2 27. RR 2

28. BL 1 29. Roof 0 30. Other 1

(0) No glazing

(1) Fixed

(2) Closed

(3) Partially opened

(4) Fully opened

(7) Glazing removed prior to accident

(9) Unknown

Glazing Damage from Impact Forces

31. WS 1 32. LF 1 33. RF 1 34. LR 1 35. RR 1

36. BL 1 37. Roof 0 38. Other 1

(0) No glazing

(1) No glazing damage from impact forces

(2) Glazing in place and cracked from impact forces

(3) Glazing in place and holed from impact forces

(4) Glazing out-of-place (cracked or not) and not holed from impact forces

(5) Glazing out-of-place and holed from impact forces

(6) Glazing disintegrated from impact forces

(7) Glazing removed prior to accident

(9) Unknown if damaged

Glazing Damage from Occupant Contact

39. WS 1 40. LF 1 41. RF 1 42. LR 1 43. RR 1

44. BL 1 45. Roof 0 46. Other 1

(0) No glazing

(1) No occupant contact to glazing

(2) Glazing contacted by occupant but no glazing damage

(3) Glazing in place and cracked by occupant contact

(4) Glazing in place and holed by occupant contact

(5) Glazing out-of-place (cracked or not) by occupant contact and not holed by occupant contact

(6) Glazing out-of-place by occupant contact and holed by occupant contact

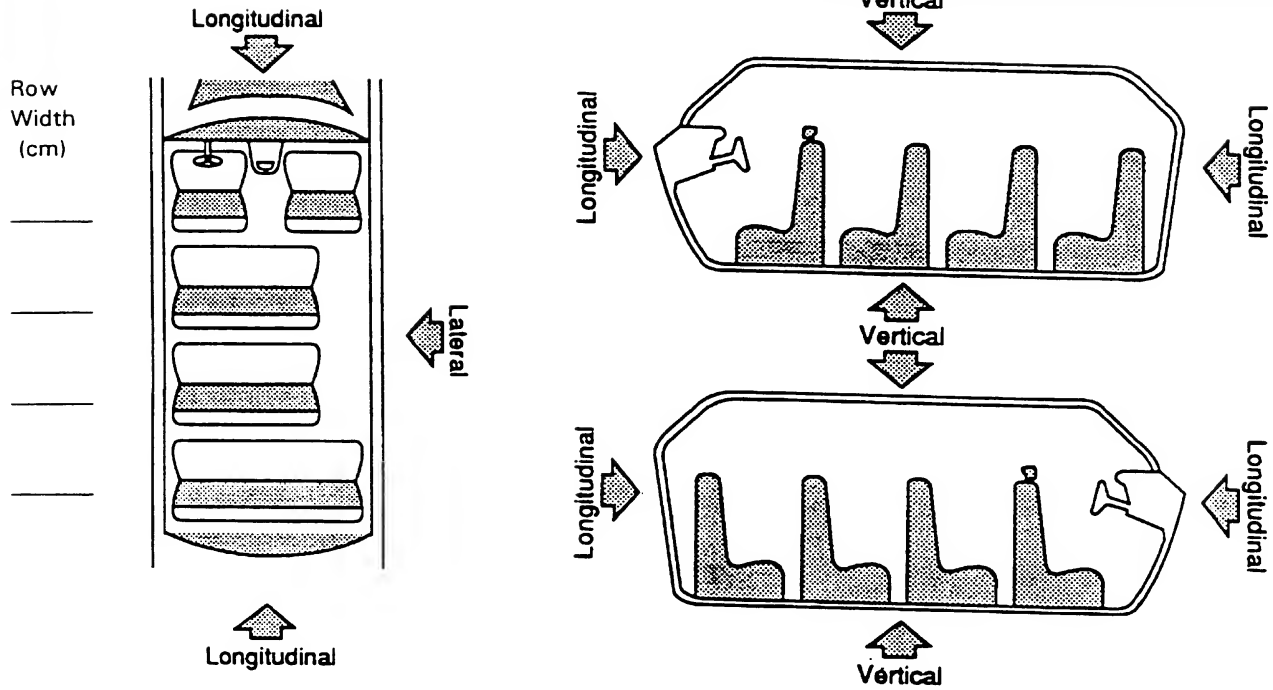
(7) Glazing removed prior to accident

(8) Glazing disintegrated by occupant contact

(9) Unknown if contacted by occupant

# INTRUSION WORKSHEET

**NOTE: SKETCH INTRUDED AREAS**



LOCATION OF INTRUSION	INTRUDED COMPONENT	(All Measurements Are In Centimeters)			INTRUSION	DOMINANT CRUSH DIRECTION
		COMPARISON VALUE	INTRUDED VALUE	=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
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		—		=		
		—		=		
		—		=		
		—		=		
		—		=		
		—		=		

Document no more than the 15 most severe intrusions

## OCCUPANT AREA INTRUSION

Note: If no intrusions, leave variables IV47-IV86 blank.

## INTRUDING COMPONENT

*Interior Components*

- (01) Steering assembly
- (02) Instrument panel left
- (03) Instrument panel center
- (04) Instrument panel right
- (05) Toe pan
- (06) A (A1/A2)-pillar
- (07) B-pillar
- (08) C-pillar
- (09) D-pillar
- (10) Side panel - forward of the A1/A2-pillar
- (11) Door panel (side)
- (12) Side panel - rear of the B-pillar
- (13) Roof (or convertible top)
- (14) Roof side rail
- (15) Windshield
- (16) Windshield header
- (17) Window frame
- (18) Floor pan (includes sill)
- (19) Backlight header
- (20) Front seat back
- (21) Second seat back
- (22) Third seat back
- (23) Fourth seat back
- (24) Fifth seat back
- (25) Seat cushion
- (26) Back door/panel (e.g., tailgate)
- (27) Other interior component (specify): \_\_\_\_\_

*Exterior Components*

- (30) Hood
- (31) Outside surface of this vehicle (specify): \_\_\_\_\_
- (32) Other exterior object in the environment (specify): \_\_\_\_\_
- (33) Unknown exterior object
- (97) Catastrophic
- (98) Intrusion of unlisted component(s) (specify): \_\_\_\_\_
- (99) Unknown

## MAGNITUDE OF INTRUSION

- (1)  $\geq 3$  centimeters but  $< 8$  centimeters
- (2)  $\geq 8$  centimeters but  $< 15$  centimeters
- (3)  $\geq 15$  centimeters but  $< 30$  centimeters
- (4)  $\geq 30$  centimeters but  $< 46$  centimeters
- (5)  $\geq 46$  centimeters but  $< 61$  centimeters
- (6)  $\geq 61$  centimeters
- (7) Catastrophic
- (9) Unknown

## DOMINANT CRUSH DIRECTION

- (1) Vertical
- (2) Longitudinal
- (3) Lateral
- (7) Catastrophic
- (9) Unknown

	Location of Intrusion	Intruding Component	Magnitude of Intrusion	Dominant Crush Direction
1st	47. <u>No</u>	48. <u>Intrusion</u>	49. <u></u>	50. <u></u>
2nd	51. <u></u>	52. <u></u>	53. <u></u>	54. <u></u>
3rd	55. <u></u>	56. <u></u>	57. <u></u>	58. <u></u>
4th	59. <u></u>	60. <u></u>	61. <u></u>	62. <u></u>
5th	63. <u></u>	64. <u></u>	65. <u></u>	66. <u></u>
6th	67. <u></u>	68. <u></u>	69. <u></u>	70. <u></u>
7th	71. <u></u>	72. <u></u>	73. <u></u>	74. <u></u>
8th	75. <u></u>	76. <u></u>	77. <u></u>	78. <u></u>
9th	79. <u></u>	80. <u></u>	81. <u></u>	82. <u></u>
10th	83. <u></u>	84. <u></u>	85. <u></u>	86. <u></u>

## LOCATION OF INTRUSION

## Front Seat

- (11) Left
- (12) Middle
- (13) Right

## Fourth Seat

- (41) Left
- (42) Middle
- (43) Right

## Second Seat

- (21) Left
- (22) Middle
- (23) Right

## (97) Catastrophic

- (98) Other enclosed area (specify) \_\_\_\_\_

## (99) Unknown

## Third Seat

- (31) Left
- (32) Middle
- (33) Right

## STEERING RIM/SPOKE DEFORMATION

(All Measurements Are in Centimeters)

COMPARISON VALUE	—	DAMAGE VALUE	=	DEFORMATION
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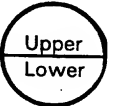
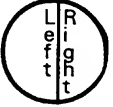
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## STEERING COLUMN

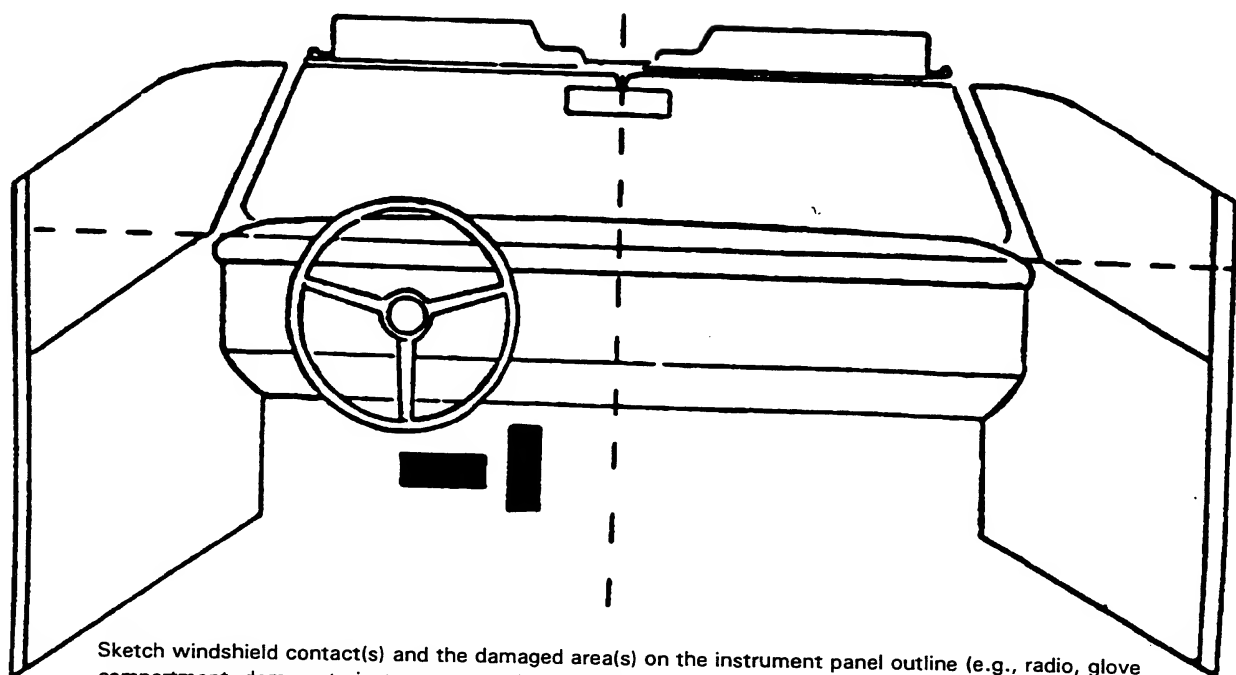
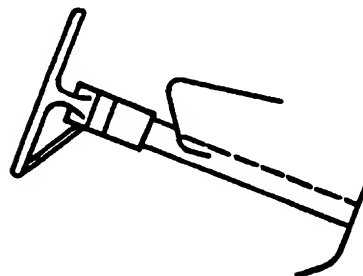
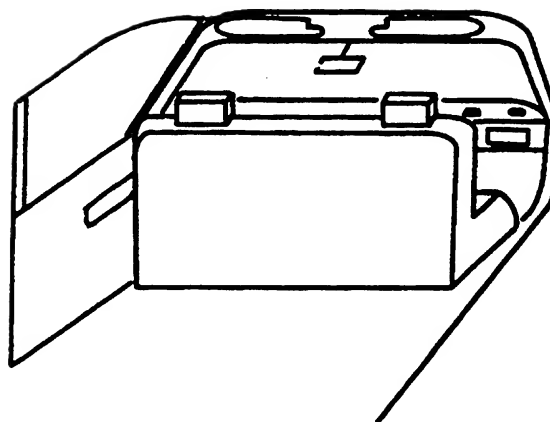
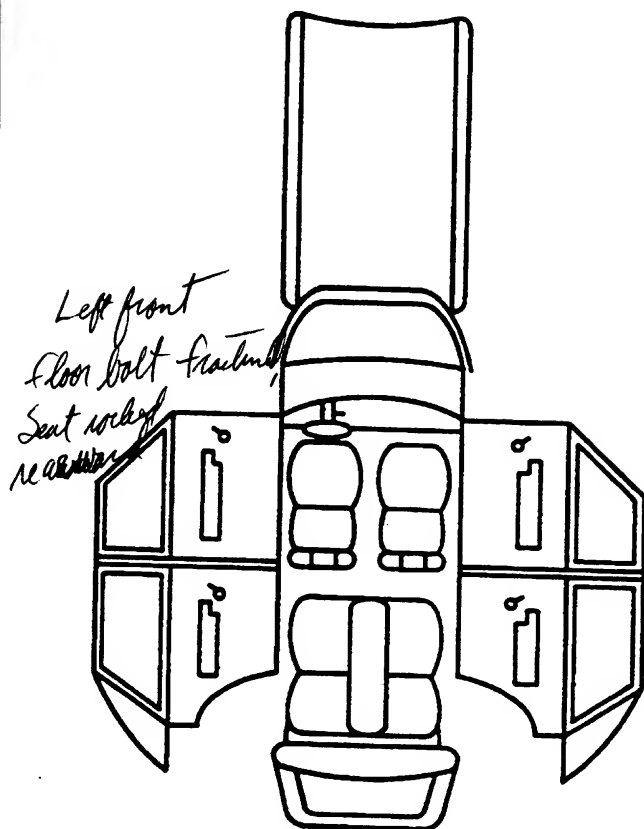
87. Steering Column Type 2  
 (1) Fixed column  
 (2) Tilt column  
 (3) Telescoping column  
 (4) Tilt and telescoping column  
 (8) Other column type (specify): \_\_\_\_\_  
 (9) Unknown
88. Tilt Steering Column Adjustment 2  
 (0) No tilt steering column  
 (1) Full up  
 (2) Between full up and center  
 (3) Center  
 (4) Between center and full down  
 (5) Full down  
 (9) Unknown
89. Telescoping Steering Column Adjustment 0  
 (0) No telescoping steering column  
 (1) Full back  
 (2) Between full back and midpoint  
 (3) Midpoint  
 (4) Between midpoint and full forward  
 (5) Full forward  
 (9) Unknown
90. Steering Rim/Spoke Deformation 00  
 Code actual measured deformation to the nearest centimeter  
 (00) No steering rim deformation  
 (01-14) Actual measured value in centimeters  
 (15) 15 centimeters or more  
 (98) Observed deformation cannot be measured  
 (99) Unknown
91. Location of Steering Rim/Spoke Deformation 00  
 (00) No steering rim deformation
- Quarter Sections*  
 (01) Section A  
 (02) Section B  
 (03) Section C  
 (04) Section D
- Half Sections*  
 (05) Upper half of rim/spoke  
 (06) Lower half of rim/spoke  
 (07) Left half of rim/spoke  
 (08) Right half of rim/spoke  
 (09) Complete steering wheel collapse  
 (10) Undetermined location  
 (99) Unknown
- 
- 
- 

## INSTRUMENT PANEL

92. Odometer Reading 72,000  
 \_\_\_\_\_ kilometers  
 Code to the nearest 1,000 kilometers  
 (000) No odometer  
 (001) Less than 1,500 kilometers  
 (500) 499,500 kilometers or more  
 (999) Unknown  
45,000 miles X 1.6093 = \_\_\_\_\_ kilometers  
 Source: \_\_\_\_\_
93. Instrument Panel Damage from Occupant Contact? 0  
 (0) No  
 (1) Yes  
 (9) Unknown
94. Type of Knee Bolster Covering 2  
 (0) No knee bolster  
 (1) Padded  
 (2) Rigid plastic  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown
95. Knee Bolsters Deformed from Occupant Contact? 1  
 (0) No knee bolster  
 (1) No deformation  
 (2) Yes - deformation  
 (9) Unknown
96. Did Glove Compartment Door Open During Collision(s)? 1  
 (0) No glove compartment door  
 (1) No - door did not open  
 (2) Yes - door opened  
 (9) Unknown
97. Adaptive (Assistive) Driving Equipment 0  
 (0) No adaptive driving equipment  
 (1) Adaptive driving equipment installed (Check all that apply.)  
 [ ] Hand controls for braking/acceleration  
 [ ] Steering control devices (attached to OEM steering wheel)  
 [ ] Steering knob attached to steering wheel  
 [ ] Low effort power steering (unit or device)  
 [ ] Replacement steering wheel (i.e., reduced diameter)  
 [ ] Joy-stick steering controls  
 [ ] Wheelchair tie-downs  
 [ ] Modification to seat belts (specify): \_\_\_\_\_  
 [ ] Additional or relocated switches (specify): \_\_\_\_\_  
 [ ] Raised roof  
 [ ] Wall-mounted head rest (used behind wheelchair)  
 [ ] Other adaptive device (specify): \_\_\_\_\_  
 (9) Unknown

## VEHICLE INTERIOR SKETCHES

Note area of ejection/entrapment



Sketch windshield contact(s) and the damaged area(s) on the instrument panel outline (e.g., radio, glove compartment, damage to instrument panel structure).  
Cross hatch contact points, draw spider webs or use other annotation as may be appropriate.  
Annotate the contacted area with a letter (begin with A) and list on the Points of Occupant Contact page.

## POINTS OF OCCUPANT CONTACT

Contact	Interior Component Contacted	Occupant No. If Known	Body Region If Known	Supporting Physical Evidence	Confidence Level of Contact Point
A					
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					

## FRONT

- (001) Windshield  
 (002) Mirror  
 (003) Sunvisor  
 (004) Steering wheel rim  
 (005) Steering wheel hub/spoke  
 (006) Steering wheel (combination of codes 004 and 005)  
 (007) Steering column, transmission selector lever, other attachment  
 (008) Cellular telephone or CB radio  
 (009) Add on equipment (e.g., tapedeck, air conditioner)  
 (010) Left instrument panel and below  
 (011) Center instrument panel and below  
 (012) Right instrument panel and below  
 (013) Glove compartment door  
 (014) Knee bolster  
 (015) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, mirror, or steering assembly (driver side only)  
 (016) Windshield including one or more of the following: front header, A (A1/A2)-pillar, instrument panel, or mirror (passenger side only)  
 (017) Windshield reinforced by exterior object, (specify): \_\_\_\_\_  
 (019) Other front object (specify): \_\_\_\_\_

## CODES FOR INTERIOR COMPONENTS

## LEFT SIDE

- (051) Left side interior surface, excluding hardware or armrests  
 (052) Left side hardware or armrest  
 (053) Left A (A1/A2)-pillar  
 (054) Left B-pillar  
 (055) Other left pillar (specify): \_\_\_\_\_  
 (056) Left side window glass  
 (057) Left side window frame  
 (058) Left side window sill  
 (059) Left side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (060) Other left side object (specify): \_\_\_\_\_

## RIGHT SIDE

- (101) Right side interior surface, excluding hardware or armrests  
 (102) Right side hardware or armrest  
 (103) Right A (A1/A2)-pillar  
 (104) Right B-pillar  
 (105) Other right pillar (specify): \_\_\_\_\_  
 (106) Right side window glass  
 (107) Right side window frame  
 (108) Right side window sill  
 (109) Right side window glass including one or more of the following: frame, window sill, A (A1/A2)-pillar, B-pillar, or roof side rail.  
 (110) Other right side object (specify): \_\_\_\_\_

## INTERIOR

- (151) Seat, back support  
 (152) Belt restraint webbing/buckle  
 (153) Belt restraint B-pillar or door frame attachment point  
 (154) Other restraint system component (specify): \_\_\_\_\_  
 (155) Head restraint system  
 (160) Other occupants (specify): \_\_\_\_\_  
 (161) Interior loose objects  
 (162) Child safety seat (specify): \_\_\_\_\_  
 (163) Other interior object (specify): \_\_\_\_\_

## AIR BAG

- (170) Air bag-driver side  
 (175) Air bag compartment cover-driver side  
 (180) Air bag-passenger side  
 (185) Air bag compartment cover-passenger side  
 (190) Other air bag (specify) \_\_\_\_\_  
 (195) Other air bag compartment cover (specify) \_\_\_\_\_

## ROOF

- (201) Front header  
 (202) Rear header  
 (203) Roof left side rail  
 (204) Roof right side rail  
 (205) Roof or convertible top

## FLOOR

- (251) Floor (including toe pan)  
 (252) Floor or console mounted transmission lever, including console  
 (253) Parking brake handle  
 (254) Foot controls including parking brake

## REAR

- (301) Backlight (rear window)  
 (302) Backlight storage rack, door, etc.  
 (303) Other rear object (specify): \_\_\_\_\_

## ADAPTIVE (ASSISTIVE) DRIVING EQUIPMENT

- (401) Hand controls for braking/acceleration  
 (402) Steering control devices (attached to OEM steering wheel)  
 (403) Steering knob attached to steering wheel  
 (405) Replacement steering wheel (i.e., reduced diameter)  
 (406) Joy stick steering controls  
 (407) Wheelchair tie-downs  
 (408) Modification to seat belts, (specify): \_\_\_\_\_  
 (409) Additional or relocated switches, (specify): \_\_\_\_\_  
 (410) Raised roof  
 (411) Wall mounted head rest (used behind wheel chair)  
 (412) Other adaptive device (specify): \_\_\_\_\_

## CONFIDENCE LEVEL OF CONTACT POINT

- (1) Certain  
 (2) Probable  
 (3) Possible  
 (9) Unknown

# MANUAL RESTRAINTS

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

If a child safety seat is present, encode the data on the back of this page 11.

If the vehicle has automatic restraints available, encode the appropriate data on page 6.

		Left	Center	Right
FIRST	A-Availability	L & S	Lap	L & S
	B-Evidence of usage	Y	NA	NA
	C-Used in this crash?	Y		
	D-Proper Use	Y		
	E-Failure Modes	N		
	F-Anchorage Adjustment	fair		fair
SECOND	A-Availability	L & S	Lap	L & S
	B-Evidence of usage	/	/	/
	C-Used in this crash?	/	/	/
	D-Proper Use	/	/	/
	E-Failure Modes	/	/	/
	F-Anchorage Adjustment	/	/	/
OTHER	A-Availability	/	/	/
	B-Evidence of usage	/	/	/
	C-Used in this crash?	/	/	/
	D-Proper Use	/	/	/
	E-Failure Modes	/	/	/
	F-Anchorage Adjustment	/	/	/

## A-Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available - type unknown

### Integral Belt Partially Destroyed

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify): \_\_\_\_\_
- (9) Unknown

## B/C-Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperable (specify): \_\_\_\_\_

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used - type unknown
- (08) Other belt used (specify): \_\_\_\_\_
- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat - type unknown
- (18) Other belt used with child safety seat (specify): \_\_\_\_\_
- (99) Unknown if belt used

## D-Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

### Belt Used Improperly

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify): \_\_\_\_\_
- (8) Other improper use of manual belt system (specify): \_\_\_\_\_
- (9) Unknown

## E-Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify): \_\_\_\_\_
- (6) Broken retractor
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other manual belt failure (specify): \_\_\_\_\_
- (9) Unknown

## F-Shoulder Belt Upper Anchorage Adjustment

- (0) No shoulder belt
- (1) No upper anchorage adjustment for shoulder belt

### Adjustable shoulder Belt Upper Anchorage

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

**AUTOMATIC RESTRAINTS**

**NOTES:** Encode the data for each applicable front seat position. The attribute for the variables may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

**AIR BAGS**

		Frontal Air Bags--Left Front	Frontal Air Bags--Right Front	Other Air Bag
F I R S T	Availability/Function	Yes	Yes	
	Deployment	No	No	
	Failure	No	No	

**Air Bag System Availability/Function**

- (0) Not equipped/not available  
(1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):  
\_\_\_\_\_  
(3) Air bag not reinstalled  
(9) Unknown

**Air Bag System Deployment  
(This Occupant Position)**

- (0) Not equipped/not available  
(1) Deployed during accident (as a result of impact)  
(2) Deployed inadvertently just prior to accident  
(3) Deployed, accident sequence undetermined  
(4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
(5) Unknown if deployed  
(7) Nondeployed  
(9) Unknown

**Are There Indications of Air Bag System Failure? (This Occupant Position)**

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
\_\_\_\_\_  
(9) Unknown

**AUTOMATIC BELTS**

		Left	Right
F I R S T	A-Availability/Function		
	B-Use		
	C-Type		
	D-Proper Use		
	E-Failure Modes		

**A-Automatic (Passive) Belt System Availability/Function**

- (0) Not equipped/not available  
(1) 2 point automatic belts  
(2) 3 point automatic belts  
(3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative  
(9) Unknown

**B-Automatic (Passive) Belt System Use**

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Automatic belt in use  
(2) Automatic belt not in use (manually disconnected, motorized track inoperative)  
(3) Automatic belt use unknown  
(9) Unknown

**C-Automatic (Passive) Belt System Type**

- (0) Not equipped/not available  
(1) Non-motorized system  
(2) Motorized system  
(9) Unknown

**D-Proper Use of Automatic (Passive) Belt System**

- (0) Not equipped/not available/not used  
(1) Automatic belt used properly  
(2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm  
(4) Automatic shoulder belt worn behind back  
(5) Automatic belt worn around more than one person  
(6) Lap portion of automatic belt worn on abdomen  
(7) Automatic lap and shoulder belt or automatic shoulder belt used improperly with child safety seat (specify):  
\_\_\_\_\_

- (8) Other improper use of automatic belt system (specify):  
\_\_\_\_\_  
(9) Unknown

**E-Automatic (Passive) Belt Failure Modes During Accident**

- (0) Not equipped/not available/not in use  
(1) No automatic belt failure(s)  
(2) Torn webbing (stretched webbing not included)  
(3) Broken buckle or latchplate  
(4) Upper anchorage separated  
(5) Other anchorage separated (specify):  
\_\_\_\_\_  
(6) Broken retractor  
(7) Combination of above (specify):  
(8) Other automatic belt failure (specify):  
\_\_\_\_\_  
(9) Unknown

# FIRST SEAT FRONTAL AIR BAGS

NOTES: Encode the applicable data *for the driver and first seat passenger* in the vehicle. The attribute for the variable may be found below. Restraint systems should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

	Driver	Passenger
A-Type of air bag?	<i>None Deployed</i>	
B-Flaps open at tear points?		
C-Flaps damaged?		
D-Air bag damaged?		
E-Source of air bag damage		
F-Air bag tethered?		
G-Air bag have vent ports?		
H-Other occupant contact air bag?		
I-Occupant wearing eyewear?		

## A-Type of Air Bag

- (0) Not equipped/not available
- (1) Original manufacturer installed system
- (2) Retrofitted air bag
- (3) Replacement air bag
- (8) Unknown type of air bag
- (9) Unknown

## B-Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available
- (1) No
- (2) Yes
- (3) Deployed, unknown if flap(s) opened at designated tear points
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## C-Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if air bag module cover flap(s) damaged
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## D-Was There Damage To The Air Bag?

- (00) Not equipped/not available
- (01) Not damaged

### Yes - Air Bag Damage

- (02) Ruptured
- (03) Cut
- (04) Torn
- (05) Holed
- (06) Burned
- (07) Abraded
- (88) Other damage (specify):

- (95) Damaged, details unknown

- (96) Deployed, unknown if damaged

- (97) Not deployed

- (98) Unknown if deployed

- (99) Unknown

## E-Source of Air Bag Damage

- (00) Not equipped/not available
- (01) Not damaged
- (02) Object worn by occupant, (specify):
- (03) Object carried by occupant, (specify):
- (04) Adaptive/assistive controls, (specify):
- (05) Fire in vehicle
- (06) Thermal burns
- (07) Rescue or emergency efforts
- (88) Other damage source (specify):

- (95) Damaged, unknown source

- (96) Deployed, unknown if damaged

- (97) Not deployed

- (98) Unknown if deployed

- (99) Unknown

## F-Was The Air Bag Tethered?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of tether straps):
- (3) Deployed, unknown if tethered
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## G-Did The Air Bag Have Vent Ports?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify number of vent ports):
- (3) Deployed, unknown if vent ports present
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

## H-Was the Air Bag in this Occupant's Position Contacted by Another Occupant?

- (0) Not equipped/not available
- (1) No
- (2) Yes (specify):
- (3) Deployed, unknown if other occupant contact to air bag
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

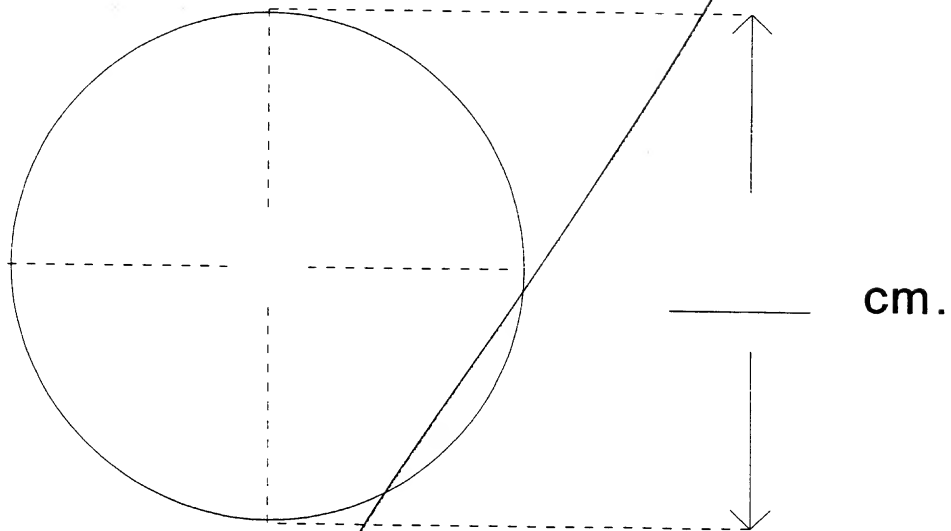
## I-Was This Occupant Wearing Eye-wear?

- (0) Not equipped/not available
- (1) No
- (2) Eyeglasses/sunglasses
- (3) Contact lenses
- (4) Deployed, unknown if eyewear worn
- (7) Not deployed
- (8) Unknown if deployed
- (9) Unknown

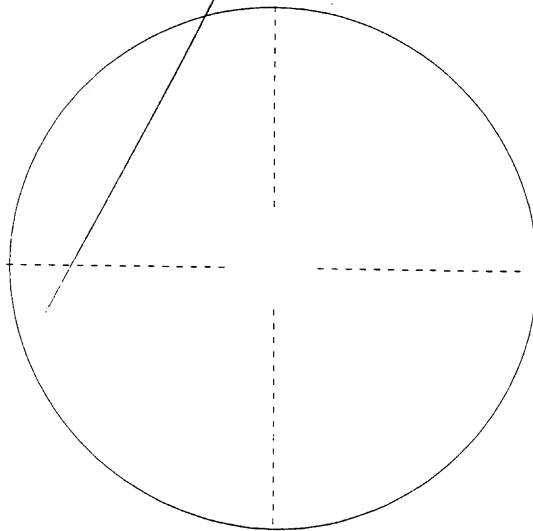


DRIVER AIR BAG DAMAGE AND CONTACT SKETCHES

1. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Front)



2. SKETCH DAMAGE AND CONTACT EVIDENCE ON DRIVER AIR BAG (Back)

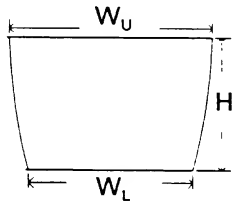


## DRIVER AIR BAG SKETCHES (Cont'd)

### 3. DRIVER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

width ( $W_U$ ) \_\_\_\_\_ width ( $W_L$ ) \_\_\_\_\_

height ( $H$ ) \_\_\_\_\_



### 4. DRIVER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

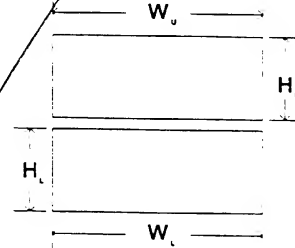
b. Lower Flap

width ( $W_U$ ) \_\_\_\_\_

width ( $W_L$ ) \_\_\_\_\_

height ( $H_U$ ) \_\_\_\_\_

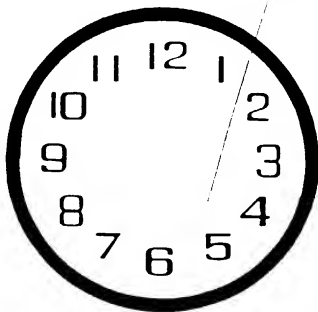
height ( $H_L$ ) \_\_\_\_\_

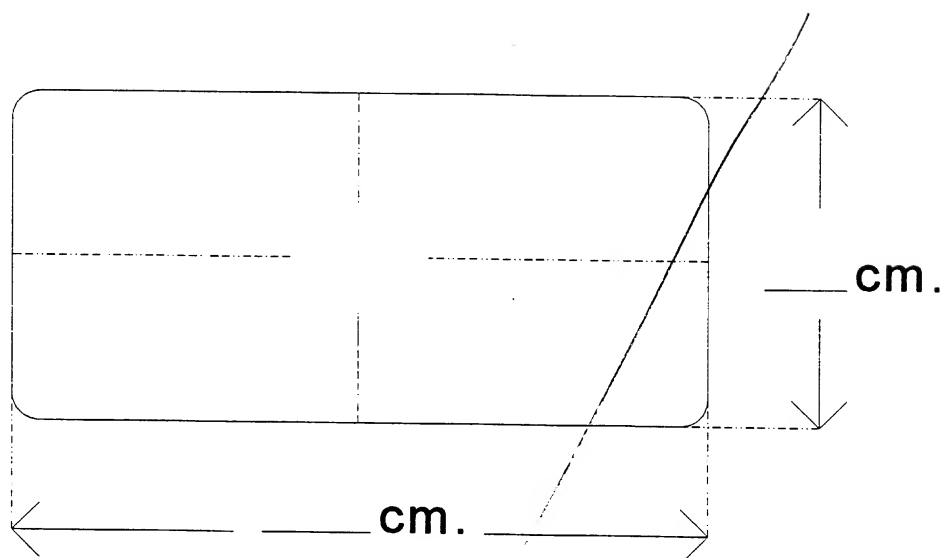
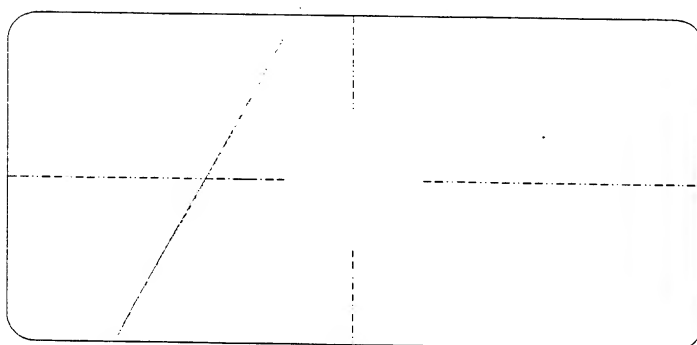


### 5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

### 6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

### 7. SKETCH LOCATION OF CIRCULAR AIR BAG VENT PORTS



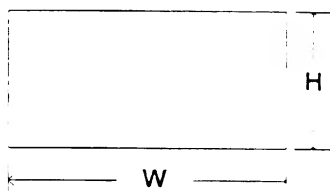
**PASSENGER AIR BAG DAMAGE AND CONTACT SKETCHES****1. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Front)****2. SKETCH DAMAGE AND CONTACT EVIDENCE ON PASSENGER AIR BAG (Back)**

## PASSENGER AIR BAG SKETCHES (Cont'd)

### 3. PASSENGER AIR BAG MODULE COVER FLAP SIZE (SINGLE)

width (W) \_\_\_\_\_

height (H) \_\_\_\_\_



### 4. PASSENGER AIR BAG MODULE COVER FLAP SIZE (DOUBLE)

a. Upper Flap

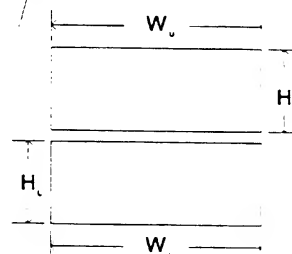
b. Lower Flap

width ( $W_U$ ) \_\_\_\_\_

width ( $W_L$ ) \_\_\_\_\_

height ( $H_U$ ) \_\_\_\_\_

height ( $H_L$ ) \_\_\_\_\_



### 5. SKETCH OF OTHER TYPE OF AIR BAG MODULE FLAP AND SIZE

### 6. SKETCH OF OTHER TYPE OF AIR BAG VENT PORTS

### 7. SKETCH LOCATION OF RECTANGULAR AIR BAG VENT PORTS

10	11	12	1	2
9				3
8	7	6	5	4

**"OTHER" AIR BAG DAMAGE AND CONTACT SKETCHES**

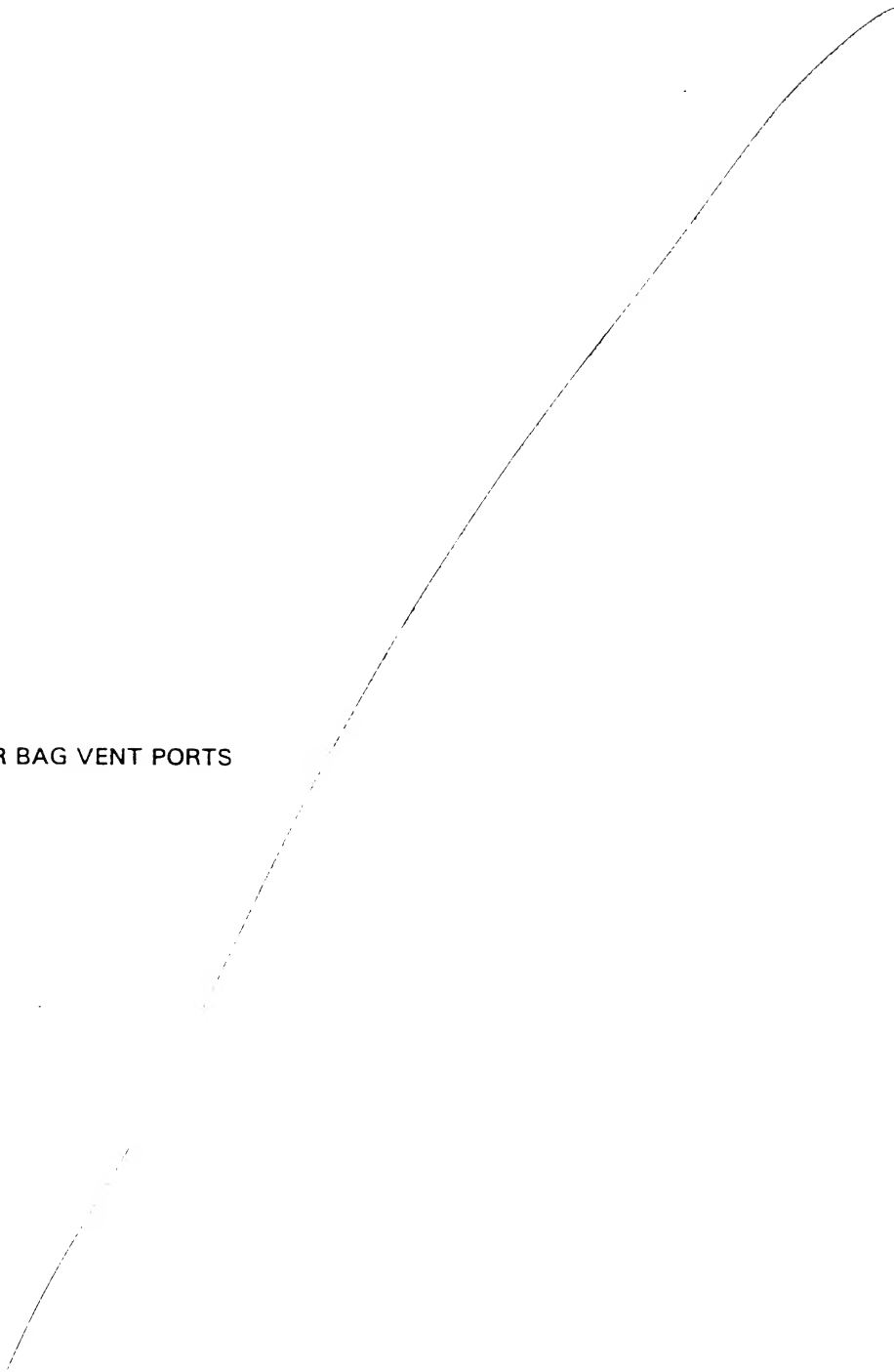
1. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Front)

2. SKETCH DAMAGE AND CONTACT EVIDENCE ON "OTHER" AIR BAG (Back)

**"OTHER" AIR BAG SKETCHES (Cont'd)**

3. SKETCH AIR BAG MODULE FLAP AND SIZE OR OPENING FOR AIRBAG

4. SKETCH AIR BAG VENT PORTS





**HEAD RESTRAINTS/SEAT EVALUATION**

**NOTES:** Encode the applicable data for each seat position in the vehicle. The attribute for these variables may be found at the bottom of the page. Head restraint type/damage and seat type/performance should be assessed during the vehicle inspection then coded on the Occupant Assessment Form.

		Left	Center	Right
F I R S T	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			
S E C O N D	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			
T H I R D	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			
O T H E R	A-Head Restraint Type/Damage			
	B-Seat Type			
	C-Seat Orientation			
	D-Seat Track Position			
	E-Seat Back Incline Pre/Post Impact			
	F-Seat Performance			

**DESCRIBE ANY INDICATION OF ABNORMAL OCCUPANT POSTURE  
(I.E., UNUSUAL OCCUPANT CONTACT PATTERN)**

## HEAD RESTRAINTS/SEAT EVALUATION

**A-Head Restraint Type/Damage by Occupant at This Occupant Position**

- (0) No head restraints
- (1) Integral — no damage
- (2) Integral — damaged during accident
- (3) Adjustable — no damage
- (4) Adjustable — damaged during accident
- (5) Add-on — no damage
- (6) Add-on — damaged during accident
- (8) Other
- Specify): \_\_\_\_\_
- (9) Unknown

**B-Seat Type (this Occupant Position)**

- (00) Occupant not seated or no seat
- (01) Bucket
- (02) Bucket with folding back
- (03) Bench
- (04) Bench with separate back cushions
- (05) Bench with folding back(s)
- (06) Split bench with separate back cushions
- (07) Split bench with folding back(s)
- (08) Pedestal (i.e., column supported)
- (09) Box mounted seat (i.e., van type)
- (10) Other seat type (specify): \_\_\_\_\_
- (99) Unknown

**C-Seat Orientation (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) Forward facing seat
- (2) Rear facing seat
- (3) Side facing seat (inward)
- (4) Side facing seat (outward)
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

**D-Seat Track Adjusted Position Prior To Impact**

- (0) Occupant not seated or no seat
- (1) Non-adjustable seat track

**Adjustable Seat Track**

- (2) Seat at forward most track position
- (3) Seat between forward most and middle track positions
- (4) Seat at middle track position
- (5) Seat between middle and rear most track positions
- (6) Seat at rear most track position
- (9) Unknown

**E-Seat Back Incline Prior and Post Impact**

- (00) Occupant not seated or no seat
- (01) Not adjustable

**Upright prior to impact**

- (11) Moved to completely rearward position
- (12) Moved to rearward midrange position
- (13) Moved to slightly rearward position
- (14) Retained pre-impact position
- (15) Moved to slightly forward position
- (16) Moved to forward midrange position
- (17) Moved to completely forward position

**Slightly reclined prior to impact**

- (21) Moved to completely rearward position
- (22) Moved to rearward midrange position
- (23) Retained pre-impact position
- (24) Moved to upright position
- (25) Moved to slightly forward position
- (26) Moved to forward midrange position
- (27) Moved to completely forward position

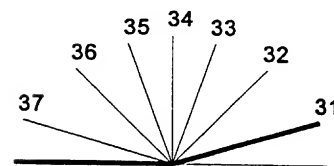
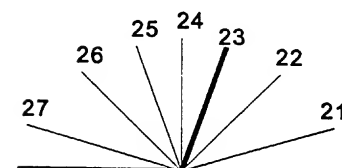
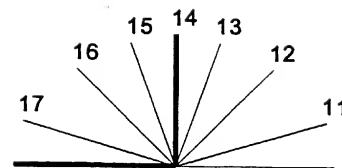
**Completely reclined prior to impact**

- (31) Retained pre-impact position
- (32) Moved to rearward midrange position
- (33) Moved to slightly rearward position
- (34) Moved to upright position
- (35) Moved to slightly forward position
- (36) Moved to forward midrange position
- (37) Moved to completely forward position

- (99) Unknown

**F-Seat Performance (this Occupant Position)**

- (0) Occupant not seated or no seat
- (1) No seat performance failure(s)
- (2) Seat adjusters failed
- (3) Seat back folding locks or "seat back" failed (specify): \_\_\_\_\_
- (4) Seat tracks/anchors failed
- (5) Deformed by impact of occupant
- (6) Deformed by passenger compartment intrusion (specify): \_\_\_\_\_
- (7) Combination of above (specify): \_\_\_\_\_
- (8) Other (specify): \_\_\_\_\_
- (9) Unknown

Coding diagrams for *Seat Back Incline Position Prior and Post Impact*

## CHILD SAFETY SEAT FIELD ASSESSMENT

When a child safety seat is present enter the occupant's number in the first row and complete the column below the occupant's number using the codes listed below. Complete a column for each child safety seat present.

Occupant Number						
1. Type of Child Safety Seat						
2. Child Safety Seat Orientation						
3. Child Safety Seat Harness Usage						
4. Child Safety Seat Shield Usage						
5. Child Safety Seat Tether Usage						
6. Child Safety Seat Make/Model	Specify Below for Each Child Safety Seat					

### 1. Type of Child Safety Seat

- (0) No child safety seat
- (1) Infant seat
- (2) Toddler seat
- (3) Convertible seat
- (4) Booster seat
- (7) Other type child safety seat (specify): \_\_\_\_\_
- (8) Unknown child safety seat type
- (9) Unknown if child safety seat used

### 2. Child Safety Seat Orientation

- (00) No child safety seat
- Designed for Rear Facing for This Age/Weight
- (01) Rear facing
- (02) Forward facing
- (08) Other orientation (specify): \_\_\_\_\_

- (09) Unknown orientation

Designed for Forward Facing for This Age/Weight

- (11) Rear facing
- (12) Forward facing
- (18) Other orientation (specify): \_\_\_\_\_

- (19) Unknown orientation

Unknown Design or Orientation For This Age/Weight, or Unknown Age/Weight

- (21) Rear facing
- (22) Forward facing
- (28) Other orientation (specify): \_\_\_\_\_

- (29) Unknown orientation

- (99) Unknown if child safety seat used

### 3. Child Safety Seat Harness Usage

### 4. Child Safety Seat Shield Usage

### 5. Child Safety Seat Tether Usage

Note: Options Below Are Used for Variables 3-5.

- (00) No child safety seat

Not Designed with Harness/Shield/Tether

- (01) After market harness/shield/tether added, not used
- (02) After market harness/shield/tether used
- (03) Child safety seat used, but no after market harness/shield/tether added
- (09) Unknown if harness/shield/tether added or used

Designed With Harness/Shield/Tether

- (11) Harness/shield/tether not used
- (12) Harness/shield/tether used
- (19) Unknown if harness/shield/tether used

Unknown If Designed With Harness/Shield/Tether

- (21) Harness/shield/tether not used
- (22) Harness/shield/tether used
- (29) Unknown if harness/shield/tether used

- (99) Unknown if child safety seat used

### 6. Child Safety Seat Make/Model

(Specify make/model and occupant number)

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**EJECTION/ENTRAPMENT DATA**

Complete the following if the researcher has any indication that an occupant was either ejected from or entrapped in the vehicle. Code the appropriate data on the Occupant Assessment Form.

**EJECTION** No [ ☒ ] Yes [ ☐ ]

Describe indications of ejection and body parts involved in partial ejection(s):

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Occupant Number						
Ejection						
(Note on Vehicle Interior Sketch) Ejection Area						
Ejection Medium						
Medium Status						

**Ejection**

- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, Unknown degree
- (9) Unknown

**Ejection Area**

- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear

- (7) Roof
- (8) Other area (e.g., back of pickup, etc.) (specify):

(9) Unknown

**Ejection Medium**

- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify):

- (5) Integral structure
- (8) Other medium (specify):

(9) Unknown

**Medium Status (Immediately Prior to Impact)**

- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

**ENTRAPMENT** No [ ☒ ] Yes [ ☐ ]

Describe entrapment mechanism:

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Component(s):

---

(Note on vehicle interior sketch)



# OCCUPANT ASSESSMENT FORM

NATIONAL ACCIDENT SAMPLING SYSTEM  
CRASHWORTHINESS DATA SYSTEM

1. Primary Sampling Unit Number

2. Case Number - Stratum

3. Vehicle Number

4. Occupant Number

## OCCUPANT'S CHARACTERISTICS

5. Occupant's Age

Code actual age at time of accident.

(00) Less than one year old (specify by month):

(97) 97 years and older

(99) Unknown

6. Occupant's Sex

(1) Male

(2) Female-not reported pregnant

(3) Female-pregnant-1st trimester(1st-3rd month)

(4) Female-pregnant-2nd trimester(4th-6th month)

(5) Female-pregnant-3rd trimester(7th-9th month)

(6) Female-pregnant-term unknown

(9) Unknown

7. Occupant's Height

Code actual height to the nearest  
centimeter.

(999) Unknown

\_\_\_\_ inches X 2.54 = \_\_\_\_ centimeters

8. Occupant's Weight

Code actual weight to the nearest  
kilogram.

(999) Unknown

\_\_\_\_ pounds X .4536 = \_\_\_\_ kilograms

9. Occupant's Role

(1) Driver

(2) Passenger

(9) Unknown

## OCCUPANT'S SEATING

10. Occupant's Seat Position

*Front Seat*

(11) Left side

(12) Middle

(13) Right side

(14) Other (specify):

(15) On or in the lap of another occupant

*Second Seat*

(21) Left side

(22) Middle

(23) Right side

(24) Other (specify):

(25) On or in the lap of another occupant

*Third Seat*

(31) Left side

(32) Middle

(33) Right side

(34) Other (specify):

(35) On or in the lap of another occupant

*Fourth Seat*

(41) Left side

(42) Middle

(43) Right side

(44) Other (specify):

(45) On or in the lap of another occupant

(97) In or on unenclosed area

(98) Other seat (specify):

(99) Unknown

11. Occupant's Posture

(0) Normal posture

*Abnormal posture*

(1) Kneeling or standing on seat

(2) Lying on or across seat

(3) Kneeling, standing or sitting in front of seat

(4) Sitting sideways or turned to talk with  
another occupant or to look out a rear  
window

(5) Sitting on a console

(6) Lying back in a reclined seat position

(7) Bracing with feet or hands on a surface in  
front of seat

(8) Other abnormal posture (specify):

(9) Unknown

## EJECTION/ENTRAPMENT

12. Ejection 0

- (0) No ejection
- (1) Complete ejection
- (2) Partial ejection
- (3) Ejection, unknown degree
- (9) Unknown

13. Ejection Area 0

- (0) No ejection
- (1) Windshield
- (2) Left front
- (3) Right front
- (4) Left rear
- (5) Right rear
- (6) Rear
- (7) Roof
- (8) Other area (e.g., back of pickup, etc.)  
(specify): \_\_\_\_\_
- (9) Unknown

14. Ejection Medium 0

- (0) No ejection
- (1) Door/hatch/tailgate
- (2) Nonfixed roof structure
- (3) Fixed glazing
- (4) Nonfixed glazing (specify): \_\_\_\_\_
- (5) Integral structure
- (8) Other medium (specify): \_\_\_\_\_
- (9) Unknown

15. Medium Status (Immediately Prior To Impact) 0

- (0) No ejection
- (1) Open
- (2) Closed
- (3) Integral structure
- (9) Unknown

16. Entrapment 0

- (0) Not entrapped/exit not inhibited
- (1) Entrapped/pinned - mechanically restrained
- (2) Could not exit vehicle due to jammed doors, fire, etc.  
(specify): \_\_\_\_\_
- (9) Unknown

17. Occupant Mobility 4

- (0) Occupant fatal before removed from vehicle
- (1) Removed from vehicle while unconscious or not oriented to time or place
- (2) Removed from vehicle due to perceived serious injuries
- (3) Exited vehicle with some assistance
- (4) Exited vehicle under own power
- (5) Occupant fully ejected
- (8) Removed from vehicle for other reasons  
(specify): \_\_\_\_\_
- (9) Unknown

## BELT SYSTEM FUNCTION

## 18. Manual (Active) Belt System Availability

- (0) None available
- (1) Belt removed/destroyed
- (2) Shoulder belt
- (3) Lap belt
- (4) Lap and shoulder belt
- (5) Belt available—type unknown

*Integral Belt Partially Destroyed*

- (6) Shoulder belt (lap belt destroyed/removed)
- (7) Lap belt (shoulder belt destroyed/removed)
- (8) Other belt (specify):

(9) Unknown

## 19. Manual (Active) Belt System Use

- (00) None used, not available, or belt removed/destroyed
- (01) Inoperative (specify):

- (02) Shoulder belt
- (03) Lap belt
- (04) Lap and shoulder belt
- (05) Belt used—type unknown
- (08) Other belt used (specify):

- (12) Shoulder belt used with child safety seat
- (13) Lap belt used with child safety seat
- (14) Lap and shoulder belt used with child safety seat
- (15) Belt used with child safety seat—type unknown
- (18) Other belt used with child safety seat (specify):
- (99) Unknown if belt used

## 20. Proper Use of Manual (Active) Belts

- (0) None used or not available
- (1) Belt used properly
- (2) Belt used properly with child safety seat

*Belt Used Improperly*

- (3) Shoulder belt worn under arm
- (4) Shoulder belt worn behind back or seat
- (5) Belt worn around more than one person
- (6) Lap belt worn on abdomen
- (7) Lap belt or lap and shoulder belt used improperly with child safety seat (specify):

(8) Other improper use of manual belt system (specify):

(9) Unknown

## 21. Manual (Active) Belt Failure Modes During Accident

- (0) No manual belt used or not available
- (1) No manual belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):

(8) Other manual belt failure (specify):

(9) Unknown

## 22. Manual Shoulder Belt Upper Anchorage Adjustment

- (0) No manual shoulder belt
- (1) No upper anchorage adjustment for manual shoulder belt

*Adjustable shoulder Belt Upper Anchorage*

- (2) In full up position
- (3) In mid position
- (4) In full down position
- (5) Position unknown
- (9) Unknown if position has adjustable upper anchorage adjustment

## 23. Automatic (Passive) Belt System Availability/Function

- (0) Not equipped/not available
- (1) 2 point automatic belts
- (2) 3 point automatic belts
- (3) Automatic belts - type unknown

*Non-functional*

- (4) Automatic belts destroyed or rendered inoperative
- (9) Unknown

## 24. Automatic (Passive) Belt System Use

- (0) Not equipped/not available/destroyed or rendered inoperative
- (1) Automatic belt in use
- (2) Automatic belt not in use (manually disconnected, motorized track inoperative) (specify):
- (3) Automatic belt use unknown
- (9) Unknown

## 25. Automatic (Passive) Belt System Type

- (0) Not equipped/not available
- (1) Non-motorized system
- (2) Motorized system
- (9) Unknown

## 26. Proper Use of Automatic (Passive) Belt System

- (0) Not equipped/not available/not used
- (1) Automatic belt used properly
- (2) Automatic belt used properly with child safety seat

*Automatic Belt Used Improperly*

- (3) Automatic shoulder belt worn under arm
- (4) Automatic shoulder belt worn behind back
- (5) Automatic belt worn around more than one person
- (6) Lap portion of automatic belt worn on abdomen
- (7) Automatic lap and shoulder belt or

automatic shoulder belt used improperly with child safety seat (specify):

- (8) Other improper use of automatic belt system (specify):
- (9) Unknown

## 27. Automatic (Passive) Belt Failure Modes During Accident

- (0) Not equipped/not available/not in use
- (1) No automatic belt failure(s)
- (2) Torn webbing (stretched webbing not included)
- (3) Broken buckle or latchplate
- (4) Upper anchorage separated
- (5) Other anchorage separated (specify):

- (6) Broken retractor
- (7) Combination of above (specify):
- (8) Other automatic belt failure (specify):

(9) Unknown



## POLICE REPORTED RESTRAINT USE

## 28. Police Reported Belt Use

- (0) None used  
 (1) Police did not indicate belt use  
 (2) Shoulder belt  
 (3) Lap belt  
 (4) Lap and shoulder belt  
 (5) Belt used, type not specified  
 (6) Child safety seat  
 (7) Automatic belt  
 (8) Other type belt, (specify):

(9) Police indicated "unknown"

## 29. Police Reported Air Bag Availability/Function

- (0) No air bag available  
 (1) Police did not indicate air bag availability/function  
 (2) Deployed  
 (3) Not deployed  
 (4) Unknown if deployed  
 (9) Police indicated "unknown"

Check the Primary Source Used In Determining Belt Use.

- [ ] Vehicle inspection  
 [ ] Official injury data  
 [ ] Driver/occupant interview  
 [ ] Other (specify):

[ ] Unknown if belt used

## AIR BAG SYSTEM FUNCTION

## 30. Frontal Air Bag System

Availability/Function

(This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

## 31. Frontal Air Bag System Deployment (This Occupant Position)

- (0) Not equipped/not available  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

## 32. Other Than First Seat Frontal Air Bag Availability/Function (This Occupant Position)

- (0) Not equipped/not available  
 (1) Air bag

*Non-functional*

- (2) Air bag disconnected (specify):

(3) Air bag not reinstalled

(9) Unknown

*Specify type of "other" air bag present:*

## 33. Air Bag(s) Deployment, Other Than First Seat Frontal (This Occupant Position)

- (0) Not equipped with an "other" air bag  
 (1) Deployed during accident (as a result of impact)  
 (2) Deployed inadvertently just prior to accident  
 (3) Deployed, details unknown  
 (4) Deployed as a result of a noncollision event during accident sequence (e.g., fire, explosion, electrical)  
 (5) Unknown if deployed  
 (7) Nondeployed  
 (9) Unknown

## 34. Are There Indications of Air Bag System Failure? (This Occupant Position)

- (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):

(9) Unknown

## FIRST SEAT FRONTAL AIR BAG SYSTEM EVALUATION

35. Had Vehicle Been in Previous Accident(s)?

- (0) Not equipped/not available  
(1) No previous accidents

Yes

- (2) Previous accident(s) without deployment(s)  
(3) One previous accident with deployment  
(4) More than one previous accident with at least one deployment  
(8) Previous accidents, unknown deployment status  
(9) Unknown

36. Type of Air Bag

- (0) Not equipped/not available  
(1) Original manufacturer installed system  
(2) Retrofitted air bag  
(3) Replacement air bag  
(8) Unknown type of air bag  
(9) Unknown

37. Had Any Prior Maintenance/Service Been Performed On This Air Bag System?

- (0) Not equipped/not available  
(1) No prior maintenance  
(2) Yes, prior maintenance (specify):

(9) Unknown

38. Air Bag Deployment Accident Event Sequence Number

- (00) Not equipped/not available

Code the accident event sequence number that initiated the air bag deployment

- (96) Deployed, unknown event  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

39. CDC For Air Bag Deployment Impact

- (0) Not equipped/not available  
(1) Highest delta V  
(2) Second highest delta V  
(3) Other non-coded delta V (specify):

- (6) Deployed, unknown event  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

40. Longitudinal Component of Delta V For Air Bag Deployment Impact

- (\_000) Not equipped/not available

Code the value of the delta V for the impact that initiated the air bag deployment

- (\_996) Deployment, unknown longitudinal Delta V  
(\_997) Not deployed  
(\_998) Unknown if deployed  
(\_999) Unknown

41. Did Air Bag Module Cover Flap(s) Open At Designated Tear Points?

- (0) Not equipped/not available  
(1) No  
(2) Yes  
(3) Deployed, unknown if flap(s) opened at designated tear points  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

42. Were Air Bag Module Cover Flap(s) Damaged?

- (0) Not equipped/not available  
(1) No  
(2) Yes (specify):  
(3) Deployed, unknown if air bag module cover flap(s) damaged  
(7) Not deployed  
(8) Unknown if deployed  
(9) Unknown

43. Was There Damage To The Air Bag?

- (00) Not equipped/not available  
(01) Not damaged

Yes - Air Bag Damage

- (02) Ruptured  
(03) Cut  
(04) Torn  
(05) Holed  
(06) Burned  
(07) Abraded  
(88) Other damage (specify):

- (95) Damaged, details unknown  
(96) Deployed, unknown if damaged  
(97) Not deployed  
(98) Unknown if deployed  
(99) Unknown

**FIRST SEAT FRONTAL AIR BAG SYSTEM  
EVALUATION** *continued***HEAD RESTRAINT AND SEAT EVALUATION**

44. Source of Air Bag Damage 97  
 (00) Not equipped/not available  
 (01) Not damaged  
 (02) Object worn by occupant, (specify):  
 (03) Object carried by occupant, (specify):  
 (04) Adaptive/assistive controls, (specify):  
 (05) Fire in vehicle  
 (06) Thermal burns  
 (07) Rescue or emergency efforts  
 (08) Other damage source (specify):  
 (95) Damaged, unknown source  
 (96) Deployed, unknown if damaged  
 (97) Not deployed  
 (98) Unknown if deployed  
 (99) Unknown
45. Was The Air Bag Tethered? 7  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of tether straps):  
 (3) Deployed, unknown if tethered  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
46. Did The Air Bag Have Vent Ports? 7  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify number of vent ports):  
 (3) Deployed, unknown if vent ports present  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
47. Was the Air Bag in this Occupant's Position Contacted by Another Occupant? 7  
 (0) Not equipped/not available  
 (1) No  
 (2) Yes (specify):  
 (3) Deployed, unknown if other occupant contact to air bag  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown
48. Was This Occupant Wearing Eye-wear? 7  
 (0) Not air bag equipped/air bag not available  
 (1) No  
 (2) Eyeglasses/sunglasses  
 (3) Contact lenses  
 (4) Deployed, unknown if eyewear worn  
 (7) Not deployed  
 (8) Unknown if deployed  
 (9) Unknown

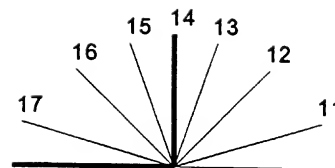
49. Head Restraint Type/Damage by Occupant at This Occupant Position 3  
 (0) No head restraints  
 (1) Integral—no damage  
 (2) Integral—damaged during accident  
 (3) Adjustable—no damage  
 (4) Adjustable—damaged during accident  
 (5) Add-on—no damage  
 (6) Add-on—damaged during accident  
 (8) Other (specify):  
 (9) Unknown
50. Seat Type (this Occupant Position) 06  
 (00) Occupant not seated or no seat  
 (01) Bucket  
 (02) Bucket with folding back  
 (03) Bench  
 (04) Bench with separate back cushions  
 (05) Bench with folding back(s)  
 (06) Split bench with separate back cushions  
 (07) Split bench with folding back(s)  
 (08) Pedestal (i.e., column supported)  
 (09) Box mounted seat (i.e., van type)  
 (10) Other seat type (specify):  
 (99) Unknown
51. Seat Orientation (this Occupant Position) 1  
 (0) Occupant not seated or no seat  
 (1) Forward facing seat  
 (2) Rear facing seat  
 (3) Side facing seat (inward)  
 (4) Side facing seat (outward)  
 (8) Other (specify):  
 (9) Unknown
52. Seat Track Adjusted Position Prior To Impact 6  
 (0) Occupant not seated or no seat  
 (1) Non-adjustable seat track  
*Adjustable Seat Track*  
 (2) Seat at forward most track position  
 (3) Seat between forward most and middle track positions  
 (4) Seat at middle track position  
 (5) Seat between middle and rear most track positions  
 (6) Seat at rear most track position  
 (9) Unknown

HEAD RESTRAINT AND SEAT EVALUATION *continued*53. Seat Back Incline Prior and Post Impact 2 2

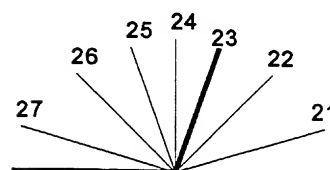
- (00) Occupant not seated or no seat  
 (01) Not adjustable

***Upright prior to impact***

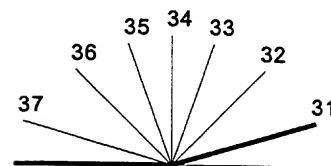
- (11) Moved to completely rearward position  
 (12) Moved to rearward midrange position  
 (13) Moved to slightly rearward position  
 (14) Retained pre-impact position  
 (15) Moved to slightly forward position  
 (16) Moved to forward midrange position  
 (17) Moved to completely forward position

***Slightly reclined prior to impact***

- (21) Moved to completely rearward position  
 (22) Moved to rearward midrange position  
 (23) Retained pre-impact position  
 (24) Moved to upright position  
 (25) Moved to slightly forward position  
 (26) Moved to forward midrange position  
 (27) Moved to completely forward position

***Completely reclined prior to impact***

- (31) Retained pre-impact position  
 (32) Moved to rearward midrange position  
 (33) Moved to slightly rearward position  
 (34) Moved to upright position  
 (35) Moved to slightly forward position  
 (36) Moved to forward midrange position  
 (37) Moved to completely forward position



(99) Unknown

54. Seat Performance (this Occupant Position) 4

- (0) Occupant not seated or no seat  
 (1) No seat performance failure(s)  
 (2) Seat adjusters failed  
 (3) Seat back folding locks or "seat back" failed  
     (specify): \_\_\_\_\_  
 (4) Seat track/anchors failed  
 (5) Deformed by impact of occupant  
 (6) Deformed by passenger compartment  
     intrusion, (specify): \_\_\_\_\_  
 (7) Combination of above (specify): \_\_\_\_\_  
 (8) Other (specify): \_\_\_\_\_  
 (9) Unknown

## CHILD SAFETY SEAT

55. Child Safety Seat Make/Model

(000) No child safety seat

Applicable codes are found in your NASS CDS  
Data Collection, Coding and Editing

(950) Built-in child safety seat

(997) Other make/model (specify):

(998) Unknown make/model

(999) Unknown if child safety seat used

56. Type of Child Safety Seat

(0) No child safety seat

(1) Infant seat

(2) Toddler seat

(3) Convertible seat

(4) Booster seat - with shield

(5) Booster seat - without shield

(7) Other type child safety seat (specify):

(8) Unknown child safety seat type

(9) Unknown if child safety seat used

57. Child Safety Seat Orientation

(00) No child safety seat

*Designed for Rear Facing for This Age/Weight*

(01) Rear facing

(02) Forward facing

(08) Other orientation (specify):

(09) Unknown orientation

*Designed For Forward Facing for This Age/Weight*

(11) Rear facing

(12) Forward facing

(18) Other orientation (specify):

(19) Unknown orientation

*Unknown Design or Orientation For This  
Age/Weight, or Unknown Age/Weight*

(21) Rear facing

(22) Forward facing

(28) Other orientation (specify):

(29) Unknown orientation

(99) Unknown if child safety seat used

58. Child Safety Seat Harness Usage

59. Child Safety Seat Shield Usage

60. Child Safety Seat Tether Usage

Note: Options below applicable to  
Variables OA58-OA60.

(00) No child safety seat

*Not Designed With Harness/Shield/Tether*(01) After market harness/shield/tether  
added, not used

(02) After market harness/shield/tether used

(03) Child safety seat used, but no after market  
harness/shield/tether added(09) Unknown if harness/shield/tether  
added or used*Designed With Harness/Shield/Tether*

(11) Harness/shield/tether not used

(12) Harness/shield/tether used

(19) Unknown if harness/shield/tether used

*Unknown If Designed With Harness/Shield/Tether*

(21) Harness/shield/tether not used

(22) Harness/shield/tether used

(29) Unknown if harness/shield/tether used

(99) Unknown if child safety seat used

**INJURY CONSEQUENCES**61. Injury Severity (Police Rating) 1

- (0) O - No injury
- (1) C - Possible injury
- (2) B - Nonincapacitating injury
- (3) A - Incapacitating injury
- (4) K - Killed
- (5) U - Injury, severity unknown
- (6) Died prior to accident
- (9) Unknown

62. Treatment - Mortality 0

- (0) No treatment
- (1) Fatal
- (2) Fatal - ruled disease (specify):  
\_\_\_\_\_

*Nonfatal*

- (3) Hospitalization
- (4) Transported and released
- (5) Treatment at scene - nontransported
- (6) Treatment later
- (7) Treatment - other (specify):  
\_\_\_\_\_
- (8) Transported to a medical facility-unknown if treated
- (9) Unknown

63. Type Of Medical Facility (for Initial Treatment) 0

- (0) Not treated at a medical facility
- (1) Trauma center
- (2) Hospital
- (3) Medical clinic
- (4) Physician's office
- (5) Treatment later at medical facility
- (8) Other (specify):  
\_\_\_\_\_
- (9) Unknown

64. Hospital Stay 00

- (00) Not Hospitalized
- \_\_\_\_\_ Code the number of days (up through 60) that the occupant stayed in hospital.
- (61) 61 days or more
- (99) Unknown

65. Working Days Lost 00

- \_\_\_\_\_ Code the number of days (up through 60) that the occupant lost from work due to the accident
- (00) No working days lost
- (61) 61 days or more
- (62) Fatally injured
- (97) Not working prior to accident
- (99) Unknown

**STOP WORK HERE****VARIABLES 66-74****TO BE CODED BY THE ZONE CENTER**

**TO BE CODED BY THE ZONE CENTER****INJURY CONSEQUENCES**

## 66. Time to Death

Code number of hours from time of accident to time of death up through 24 hours. If time of death is greater than 24 hours, code number of days. (Note: 1 day = 31, 2 days = 32, ... n days = 30 + n up through 30 days = 60)

- (00) Not fatal  
(96) Fatal - ruled disease  
(99) Unknown

## 67. 1st Medically Reported Cause of Death

## 68. 2nd Medically Reported Cause of Death

## 69. 3rd Medically Reported Cause of Death

Code the Occupant Injury from line number(s) for the medically reported injury(s) which reportedly contributed to this occupant's death

- (00) Not fatal or no additional causes  
(96) Mode of death given but specific injuries are not linked to cause of death. (specify):

- (97) Other result (includes fatal ruled disease) (specify):

- (99) Unknown

## 70. Number of Recorded Injuries for This Occupant

Code the actual number of injuries recorded for this occupant.

- (00) No recorded injuries  
(97) Injured, details unknown  
(99) Unknown if injured

**TRAUMA DATA**

## 71. Glasgow Coma Scale (GCS) Score (at Medical Facility)

- (00) Not injured  
(01) Injured - not treated at medical facility  
(02) No GCS Score at medical facility  
(03-15) Code the actual value of the initial GCS Score recorded at medical facility.  
(97) Injured, details unknown  
(99) Unknown if injured

## 72. Was the Occupant Given Blood?

- (1) No - blood not given  
(2) Yes - blood given  
(specify units):  
(9) Unknown if blood given

73. Arterial Blood Gases (ABG) -  $\text{HCO}_3$ 

- (00) Not injured  
(01) Injured, ABGs not measured or reported  
(02-50) Code the actual value of the  $\text{HCO}_3$   
(96) ABGs reported,  $\text{HCO}_3$  unknown  
(97) Injured, details unknown  
(99) Unknown if injured

**BELT USE DETERMINATION**

## 74. Primary Source of Belt Use Determination

- (0) Not equipped/not available/destroyed or rendered inoperative  
(1) Vehicle inspection  
(2) Official injury data  
(3) Driver/occupant interview  
(8) Other (specify):  
(9) Unknown if belt used





COMMONWEALTH OF PENNSYLVANIA  
POLICE ACCIDENT REPORT

BEST AVAILABLE

XX REFER TO OVERLAY SHEETS

REPORTABLE ☐ NON-REPORTABLE ☒

PENNDOT USE ONLY

POLICE INFORMATION

1. INCIDENT NUMBER	[REDACTED]
2. AGENCY NAME	Police Dept.
3. STATION/PRECINCT	Dist.
4. PATROL ZONE	[REDACTED]
5. INVESTIGATOR	P/O [REDACTED]
6. APPROVED BY	Sgt. [REDACTED]
7. INVESTIGATION DATE	9/6
8. ARRIVAL TIME	4:33 pm

ACCIDENT INFORMATION

9. ACCIDENT DATE	9/6
10. DAY OF WEEK	[REDACTED]
11. TIME OF DAY	4:33 pm
12. NUMBER OF UNITS	2
13. # KILLED	
14. # INJURED	
15. PRIV. PROP. ACCIDENT	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
16. DID VEHICLE HAVE TO BE REMOVED FROM THE SCENE?	UNIT 1 Y <input checked="" type="checkbox"/> N <input type="checkbox"/> UNIT 2 Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
17. VEHICLE DAMAGE	0 - NONE UNIT 1 3 1 - LIGHT 2 - MODERATE 3 - SEVERE UNIT 2 1
18. HAZARDOUS MATERIALS	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>
19. PENNDOT PROPERTY	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>

UNIT # 1

36. LEGALLY PARKED?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	37. REG. PLATE	[REDACTED]	38. STATE	PA
39. PA TITLE OR OUT-OF-STATE VIN	1FA1P053XSK				
40. OWNER	[REDACTED]				
41. OWNER ADDRESS	[REDACTED]				
42. CITY, STATE & ZIPCODE	[REDACTED] Pa.				
43. YEAR	95	44. MAKE	FORD		
45. MODEL - (NOT BODY TYPE)	Contour	46. INS.	Y <input checked="" type="checkbox"/> N <input type="checkbox"/> UNK <input type="checkbox"/>		
47. BODY TYPE	04	48. SPECIAL USAGE	0	49. VEHICLE OWNERSHIP	1
50. INITIAL IMPACT POINT	12	51. VEHICLE STATUS	0	52. TRAVEL SPEED	99
53. VEHICLE GRADIENT	1	54. DRIVER PRESENCE	1	55. DRIVER CONDITION	1
56. DRIVER NUMBER	[REDACTED]	57. STATE	PA		
58. DRIVER NAME	[REDACTED]				
59. DRIVER ADDRESS	[REDACTED] Are.				
60. CITY, STATE & ZIPCODE	[REDACTED] Pa.				
61. SEX	M	62. DATE OF BIRTH	9/17	63. PHONE	[REDACTED]
64. COMM. VEH Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	65. DRIVER CLASS	C	66. DRIVER SS #	unknown	
67. CARRIER	N/A				

ACCIDENT LOCATION

20. COUNTY	[REDACTED]	CODE	67
21. MUNICIPALITY	[REDACTED]	CODE	301
22. ROUTE NO. OR STREET NAME			
[REDACTED] Ave.			
23. SPEED LIMIT	35	24. TYPE HIGHWAY	1
		25. ACCESS CONTROL	1

PRINCIPAL ROADWAY INFORMATION

INTERSECTING ROAD:

26. ROUTE NO. OR STREET NAME	[REDACTED] Drive		
27. SPEED LIMIT	35	28. TYPE HIGHWAY	1
		29. ACCESS CONTROL	1
IF NOT AT INTERSECTION:			
30. CROSS STREET OR SEGMENT MARKER	[REDACTED] Ave.		
31. DIRECTION FROM SITE	N S E W	32. DISTANCE FROM SITE	40 FT. MI.
33. DISTANCE WAS	MEASURED <input type="checkbox"/>	ESTIMATED <input checked="" type="checkbox"/>	
34. CONSTRUCTION ZONE	<input type="checkbox"/>	35. TRAFFIC CONTROL DEVICE	PRINCIPAL <input type="checkbox"/> INTERSECTING <input checked="" type="checkbox"/>

UNIT # 2

36. LEGALLY PARKED?	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	37. REG. PLATE	[REDACTED]	38. STATE	PA
39. PA TITLE OR OUT-OF-STATE VIN	1JNCM81P3RY				
40. OWNER	[REDACTED]				
41. OWNER ADDRESS	[REDACTED] Are.				
42. CITY, STATE & ZIPCODE	[REDACTED] Pa.				
43. YEAR	94	44. MAKE	FORD		
45. MODEL - (NOT BODY TYPE)	Lincoln	46. INS.	Y <input type="checkbox"/> N <input type="checkbox"/> UNK <input type="checkbox"/>		
47. BODY TYPE	04	48. SPECIAL USAGE	0	49. VEHICLE OWNERSHIP	1
50. INITIAL IMPACT POINT	6	51. VEHICLE STATUS	0	52. TRAVEL SPEED	99
53. VEHICLE GRADIENT	1	54. DRIVER PRESENCE	1	55. DRIVER CONDITION	1
56. DRIVER NUMBER	[REDACTED]	57. STATE	PA		
58. DRIVER NAME	[REDACTED]				
59. DRIVER ADDRESS	[REDACTED] Are.				
60. CITY, STATE & ZIPCODE	[REDACTED] Pa.				
61. SEX	M	62. DATE OF BIRTH	9/1	63. PHONE	[REDACTED]
64. COMM. VEH Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	65. DRIVER CLASS	C	66. DRIVER SS #	[REDACTED]	
67. CARRIER	N/A				

78. RESPONDING EMS AGENCY <u>Medic [REDACTED]</u>												INCIDENT #: [REDACTED]											
79. MEDICAL FACILITY <u>Hospital</u>												ACCIDENT DATE: <u>4-9-96</u>											

80. PEOPLE INFORMATION														
A	B	C	D	E	F	G	NAME	ADDRESS	H	I	J	K	L	M
1	1	M	78	3	1	1	[REDACTED]	[REDACTED]	0	0	0	N	0	0
1	3	M	5	3	1	1	[REDACTED]	[REDACTED]	2	99	9	C	0	3
2	1	M	25	3	1	1	[REDACTED]	[REDACTED]	4	0	0	0	0	0

81. ILLUMINATION ☒ 2

82. WEATHER ☒ 0

83. ROAD SURFACE ☒ 1

84. PENNSYLVANIA SCHOOL DISTRICT (IF APPLICABLE)

85. DESCRIPTION OF DAMAGED PROPERTY

OWNER

ADDRESS

PHONE

86. DIAGRAM

87. NARRATIVE - IDENTIFY PRECIPITATING EVENTS, CAUSATION FACTORS, SEQUENCES OF EVENTS, WITNESS STATEMENTS, AND PROVIDE ADDITIONAL DETAILS, LIKE INSURANCE INFORMATION AND LOCATION OF TOWED VEHICLES, IF KNOWN.

Comp [REDACTED] was in his 1994 Lincoln town car traveling s/b [REDACTED] pulled off the shoulder to let emergency Veh pass with Veh#1 [REDACTED] 1995 Ford Contour, Struck Veh#2 in the rear causing minor damage to rear bumper Veh#2 traveling s/b on [REDACTED] ave. (severe injury to passenger in Veh#1 in severe serious condition Head & neck injury, Compl. transported to [REDACTED] Hospital by Medic# [REDACTED] A&D Notified treated by [REDACTED]

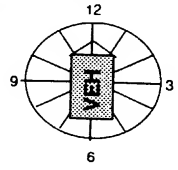
INSURANCE INFORMATION		COMPANY		INSURANCE INFORMATION		COMPANY	
UNIT 1	POLICY NO.	[REDACTED]	[REDACTED]	UNIT 2	POLICY NO.	[REDACTED]	[REDACTED]

88. WITNESSES		NAME		ADDRESS		PHONE	
		[REDACTED]		[REDACTED]		[REDACTED]	
		NAME		ADDRESS		PHONE	
		[REDACTED]		[REDACTED]		[REDACTED]	

89. VIOLATIONS INDICATED				90. SECTION NUMBERS (ONLY IF CHARGED)				TC	NTC
N/A				N/A					
UNIT 1									
UNIT 2									

91. PROBABLE USE		92. TYPE TEST		93. RESULTS		91. PROBABLE USE		92. TYPE TEST		93. RESULTS		94. INVESTIGATION COMPLETE?	
UNIT 1		UNIT 1		UNIT 1		UNIT 2		UNIT 2		UNIT 2			
				0	0%					0	0%		

POLICE ACCIDENT REPORT - Overlay Sheet - 1

ACCIDENT LOCATION FIELDS	
<b>24. &amp; 28. TYPE HIGHWAY</b> 0 - NOT PHYSICALLY DIVIDED 1 - DIVIDED HIGHWAY - MEDIAN STRIP WITHOUT TRAFFIC BARRIER 2 - DIVIDED HIGHWAY - MEDIAN STRIP WITH TRAFFIC BARRIER N - ONE WAY TRAFFIC NORTH S - ONE WAY TRAFFIC SOUTH E - ONE WAY TRAFFIC EAST W - ONE WAY TRAFFIC WEST	
<b>25. &amp; 29. ACCESS CONTROL</b> 1 - NO CONTROLS (UNLIMITED ACCESS) 2 - FULL CONTROL (ONLY RAMP ENTRY AND EXIT) 8 - OTHER 9 - UNKNOWN	
<b>34. CONSTRUCTION ZONE</b> 0 - NOT APPLICABLE 1 - CONSTRUCTION ZONE 2 - MAINTENANCE ZONE 3 - UTILITY COMPANY WORK 9 - UNKNOWN	
<b>35. TRAFFIC CONTROL DEVICE</b> 0 - NO CONTROLS 1 - FLASHING SIGNALS 2 - TRAFFIC SIGNAL 3 - STOP SIGN 4 - YIELD SIGN 5 - RR CROSSING 6 - POLICE OFFICER OR FLAGMAN 7 - FLASHING SCHOOL ZONE 8 - OTHER 9 - UNKNOWN	
UNIT INFORMATION FIELDS	
<b>47. BODY TYPE</b> <b>AUTOMOBILES</b> 01 - CONVERTIBLE 02 - 2 DOOR 03 - 3 DOOR (HATCH BACK, 2 DR) 04 - 4 DOOR 05 - 5 DOOR (HATCH BACK, 4 DR) 06 - STATION WAGON 07 - HATCH BACK NUMBER DOORS UNKNOWN <b>47. BODY TYPE (CONTINUED)</b> <b>AUTOMOBILES CONTINUED</b> 08 - OTHER AUTOMOBILE 09 - UNKNOWN AUTOMOBILE 10 - AUTOMOBILE BASED PICK-UP 11 - AUTOMOBILE BASED PANEL 12 - SHORT UTILITY 13 - LARGE LIMOUSINE 14 - THREE WHEEL AUTO OR DERIVATIVE <b>MOTORCYCLES</b> 20 - MOTORCYCLE 21 - MOPED 27 - THREE WHEEL MOTORCYCLE OR MOPED 28 - MINIBIKE, MOTORSCOOTER 29 - UNKNOWN MOTORCYCLE <b>BUSES</b> 30 - SCHOOL BUS 31 - CROSS COUNTRY/INTERCITY 32 - TRANSIT BUS 38 - OTHER BUS 39 - UNKNOWN BUS TYPE <b>VANS</b> 40 - VAN 41 - VAN COMMERCIAL CUTAWAY 42 - VAN BASED MOTORHOME 48 - OTHER VAN TYPE 49 - UNKNOWN VAN TYPE <b>LIGHT TRUCKS (GVWR &lt; 10,000#)</b> 50 - PICK - UP 51 - PICKUP WITH SLIDE IN CAMPER 52 - PICKUP BASED MOTORHOME 53 - CAB CHASSIS BASED 54 - TRUCK BASED PANEL 55 - TRUCK BASED STATION WAGON 56 - TRUCK BASED UTILITY 58 - OTHER LIGHT TRUCK 59 - UNKNOWN LIGHT TRUCK TYPE 67 - STATIONWAGON - BASE BODY TYPE UNKNOWN 68 - UTILITY - BASE BODY TYPE UNKNOWN 69 - UNKNOWN LIGHT TRUCK <b>MEDIUM/HEAVY TRUCKS</b> 70 - SINGLE UNIT STRAIGHT TRUCK 73 - MEDIUM/HEAVY TRUCK BASED MOTORHOME 74 - TRUCK TRACTOR (CAB) 75 - UNKNOWN IF SINGLE UNIT OR COMBINATION TRUCK 77 - CAMPER OR MOTORHOME UNKNOWN TRUCK TYPE 79 - UNKNOWN TRUCK TYPE	
<b>47. BODYTYPE (CONTINUED)</b> <b>OTHER MOTORIZED VEHICLE</b> 80 - SNOWMOBILE 81 - FARM EQUIPMENT 82 - ATV 83 - CONSTRUCTION EQUIPMENT 88 - OTHER UNSPECIFIED VEHICLE 89 - UNKNOWN OTHER MOTORIZED VEHICLES <b>NON-MOTORIZED UNITS</b> 90 - UNICYCLE, BICYCLE, TRICYCLE 91 - OTHER PEDALCYCLE (BIG WHEEL) 92 - UNKNOWN PEDALCYCLE 93 - HORSE AND BUGGY 94 - HORSE AND RIDER <b>TRACK VEHICLES</b> 95 - TRAIN 96 - TROLLEY <b>IF NOTHING ELSE</b> 98 - OTHER BODY TYPE 99 - UNKNOWN BODY TYPE	
<b>50. INITIAL IMPACT POINT</b> 0 - NO IMPACT OR CONTACT 1 - 12 CLOCK POINTS 13 - TOP 14 - UNDERCARRIAGE 15 - TOWED UNIT 99 - UNKNOWN 	
<b>51. VEHICLE STATUS</b> 0 - NOT APPLICABLE 1 - LEGALLY PARKED 2 - ILLEGALLY PARKED - ON ROAD 3 - ILLEGALLY PARKED - OFF ROAD 4 - HIT AND RUN 5 - DISABLED FROM PREVIOUS ACCIDENT	
<b>52. TRAVEL SPEED</b> 00 - STOPPED OR PARKED 01 - 97 ACTUAL OR ESTIMATED SPEED 98 - 98 MPH OR GREATER 99 - UNKNOWN	
<b>53. VEHICLE GRADIENT</b> 1 - LEVEL ROADWAY 2 - UP HILL 3 - DOWN HILL 4 - SAG (BOTTOM OF HILL) 5 - CREST (TOP OF HILL)	
IF DRIVER PRESENCE = 2 THEN DO NOT ENTER DATA FOR THE OPERATOR	
<b>54. DRIVER PRESENCE</b> 1 - DRIVER OPERATED VEHICLE 2 - DRIVERLESS VEHICLE 3 - DRIVER LEFT SCENE (AFTER ACCIDENT)	
<b>55. DRIVER CONDITION</b> 1 - APPEARED NORMAL 2 - HAD BEEN DRINKING 3 - ILLEGAL DRUG USE 4 - SICK 5 - FATIGUE 6 - ASLEEP 7 - MEDICATION 9 - UNKNOWN	

# POLICE ACCIDENT REPORT - Overlay Sheet - 2

<b>72. VEHICLE CONFIGURATION</b> 1 - BUS 2 - SINGLE UNIT - (2 AXLES, 6 TIRES) 3 - SINGLE UNIT (3+ AXLES) 4 - TRUCK TRACTOR (BOBTAIL) 5 - TRUCK TRAILER 6 - TRACTOR/SEMI-TRAILER 7 - TRACTOR/DOUBLES 8 - TRACTOR/TRIPLES 9 - UNKNOWN HEAVY TRUCK	<b>80. UNIT NUMBERS - BLOCK A</b> CODE UNIT NUMBERS AS RECORDED ON PAGE 1.	<b>80. TYPE OF INJURY - BLOCK I</b> 0 - NO INJURY 1 - AMPUTATION 2 - BLEEDING WOUND 3 - BROKEN BONES 4 - DISTORTED MEMBER 5 - BRUISES/ABRASIONS 6 - BURNS 7 - SWELLING 8 - LIMPING 9 - COMPLAINT OF PAIN 97 - OTHER INCAPACITATING INJURY 98 - OTHER NON-INCAPACITATING 99 - UNKNOWN	(CONTINUED FROM BELOW) <b>- BLOCK M</b> 2 - HELICOPTER 3 - FIRE RESCUE VEHICLE 4 - PRIVATE VEHICLE 5 - POLICE VEHICLE 8 - OTHER 9 - UNKNOWN
<b>73. CARGO BODY TYPE</b> 1 - BUS 2 - VAN / ENCLOSED BOX 3 - CARGO TANK 4 - FLATBED 5 - DUMP 6 - CONCRETE MIXER 7 - AUTO TRANSPORT 8 - GARBAGE / REFUSE 9 - OTHER / UNKNOWN	<b>80. SEAT POSITION - BLOCK B</b> 1 - DRIVER 2 - MIDDLE FRONT 3 - RIGHT FRONT 4 - LEFT REAR 5 - MIDDLE REAR 6 - RIGHT REAR 7 - PEDESTRIAN 8 - OTHER SEAT POSITION 9 - UNKNOWN	<b>80. AREA OF APPARENT INJURY</b> <b>- BLOCK J</b> 0 - NO INJURY 1 - FACE 2 - HEAD 3 - NECK 4 - BACK 5 - ARM(S) 6 - LEG(S) 7 - CHEST/STOMACH 8 - INTERNAL 9 - ENTIRE BODY 98 - OTHER AREAS 99 - UNKNOWN	<b>81. ILLUMINATION</b> 1 - DAWN 2 - DAYLIGHT 3 - DARK - STREET LIGHTS 4 - DARK - NO STREET LIGHTS 5 - DUSK
<b>78. HAZARDOUS MATERIALS</b>  CODE THE 4 DIGIT HAZARDOUS MATERIAL CODE ON THE PLACARD OR  SELECT ONE OF THE FOLLOWING CODES TO REPRESENT THE PLACARD. 00 - NOT APPLICABLE 01 - NON-FLAMMABLE GAS 02 - COMBUSTIBLE 03 - ORGANIC PEROXIDE 04 - CORROSIVE 05 - EXPLOSIVES "A" 06 - OXYGEN 07 - POISON 08 - EXPLOSIVES "B" 09 - CHLORINE 10 - OXIDIZER 11 - POISONOUS GAS 12 - FUEL OIL 13 - DANGEROUS 14 - RADIOACTIVE 15 - FLAMMABLE SOLID "W" 16 - FLAMMABLE 17 - FLAMMABLE GAS 18 - FLAMMABLE SOLID 19 - GASOLINE 20 - BLASTING AGENT 98 - OTHER/NOT SIGNED 99 - UNKNOWN  OR  CODE THE 1 DIGIT HAZARDOUS MATERIAL CODE ON THE PLACARD	<b>80. SEX - BLOCK C</b> M - MALE F - FEMALE U - UNKNOWN	<b>80. INJURY INFORMATION SOURCE</b> <b>- BLOCK K</b> N - NOT APPLICABLE A - OBSERVATION OF OFFICER B - STATEMENT FROM INDIVIDUAL C - MEDICAL/PARAMEDICAL PERSONNEL	<b>82. WEATHER</b> 0 - NO ADVERSE CONDITIONS 1 - RAINING 2 - SLEET, HAIL, FREEZING RAIN 3 - SNOWING 4 - FOG, SMOKE 5 - RAIN AND FOG
	<b>80. AGE - BLOCK D</b> CODE ACTUAL AGE, EXCEPT FOR 1 - FOR INFANTS UP TO AGE 2 98 - AGE 98 OR GREATER 99 - UNKNOWN	<b>80. EJECTION/EXTRICATION</b> <b>- BLOCK L</b> 0 - NOT APPLICABLE 1 - TOTALLY EJECTED 2 - PARTIALLY EJECTED 3 - PARTIALLY EJECTED REQUIRING EXTRICATION 4 - EXTRICATION BY PERSONS UNKNOWN 5 - EXTRICATION - TWO OR MORE TYPES 6 - EXTRICATION BY AMBULANCE OR RESCUE PERSONNEL 7 - EXTRICATION BY POLICE 8 - EXTRICATION BY SELF 9 - UNKNOWN EJECTION OR EXTRICATION	<b>83. ROAD SURFACE CONDITIONS</b> 1 - DRY 2 - WET 3 - MUDDY 4 - SNOW COVERED 5 - ICE COVERED 6 - PLOWED SNOW 7 - SALTED & CINDERED 8 - ICE PATCHES
	<b>80. ACTIVE RESTRAINT TYPE</b> <b>- BLOCK E</b> 0 - NONE OR PEDESTRIAN 1 - SHOULDER HARNESS ONLY 2 - SEAT BELT ONLY 3 - COMBINATION (HARNESS & BELT) 4 - CHILD RESTRAINT DEVICE 7 - HELMET 8 - OTHER 9 - UNKNOWN	<b>80. INJURY SEVERITY - BLOCK H</b> 0 - NO INJURY 1 - DEATH 2 - MAJOR INJURY 3 - MODERATE INJURY 4 - MINOR INJURY 9 - UNKNOWN	<b>91. PROBABLE USE</b> (ALCOHOL OR DRUGS) 0 - NONE 1 - ALCOHOL 2 - CONTROLLED SUBSTANCES 3 - OTHER DRUGS 4 - BOTH ALCOHOL AND DRUGS 9 - UNKNOWN
	<b>80. ACTIVE RESTRAINT USAGE</b> <b>- BLOCK F</b> 0 - NOT APPLICABLE 1 - IN USE 2 - NOT IN USE 9 - UNKNOWN	<b>80. INJURY TRANSPORTATION</b> <b>- BLOCK M</b> 0 - NOT APPLICABLE 1 - AMBULANCE (CONT'D ABOVE)	<b>92. TYPE TEST</b> 0 - NOT APPLICABLE /NO TEST GIVEN 1 - BLOOD 2 - BREATH 3 - URINE 4 - TEST REFUSED 8 - OTHER 9 - UNKNOWN  <b>93. RESULTS (ALCOHOL TEST)</b>  CODE ACTUAL TEST RESULT E.G. 197 GRAMS = 0.20% (MOVE 3 DECIMAL PLACES AND ROUND )

MEDICAL RECORD NO. [REDACTED]		BILLING NO. [REDACTED]		REGISTRAR [REDACTED]		REGISTRATION DATE AND TIME [REDACTED] 96 1706		ATTENDING PHYSICIAN [REDACTED]	
NAME/ADDRESS: [REDACTED] AKA: <b>DOE, [REDACTED]</b> [REDACTED] AVE [REDACTED], PA				BIRTHDATE/AGE: [REDACTED] / 91 5		SEX/RACE: M/BL		ACCOMMODATION TYPE: AER	
NAME/ADDRESS: [REDACTED] MOTHER [REDACTED] AVE [REDACTED], PA									
NAME/ADDRESS: [REDACTED] FATHER [REDACTED] AVE [REDACTED], PA									
INJURY AND TIME		INJURY LOCATION							
INFORMANT: NURSE		INJURY DESCRIPTION							
REFERRING M.D. NAME AND PHONE: [REDACTED] FAX: [REDACTED] <b>PARENTS MADE SELF REFERRA</b>				FAMILY M.D. NAME AND PHONE # [REDACTED] FAX: [REDACTED] <b>PARENTS DIDN'T HAVE I</b>					
INS 1: [REDACTED] Plan: [REDACTED]				INS 2: [REDACTED] Plan: [REDACTED]		INSURANCE NAME / ID # / GROUP / PLAN: <b>AUTO ASSIGNED SELF PA</b> Plan: [REDACTED]			
HIEF: [REDACTED]				ALLERGIES (LIST): [REDACTED]				TRANSPORTATION: <b>FIRE RES</b>	

CONDITION ON ARRIVAL: <input checked="" type="checkbox"/> GOOD <input type="checkbox"/> FAIR <input type="checkbox"/> CRITICAL		TIME SEEN: AM PM	PRECEPTOR: [REDACTED]	Physical Exam: Normal	T	P	RR	BP
<p>3yr old restrained front seat passenger stopped at light. Driver's foot slipped onto gas pedal &amp; accel into car in front. Air bag engaged. unknown if LOC at scene. but did not cry initially. It brought in back board &amp; c-spine collar.</p> <p>PMH: <math>\phi</math> hosp HES <math>\phi</math> NKDA IMM VTD WCC - VICKERS</p>				General	Crying but not obeying verbal commands			
				Head	✓ NCAT			
				Ears	- TM's not visualized 2° cen			
				Eyes	✓ PERIL / EOMI			
				Nose	✓ $\phi$ DIC / bld			
				Mouth	O sm tongue lac @ side			
				Throat	✓			
				Neck	O immobilized a collar; abrasion @ ant neck			
				Torso				
				Lungs	✓ CRA BS = bilar			
				Heart	✓ RRR @			
				Abd.	✓ soft NT @ HSM @ BS			
				Rectum	✓ $\phi$ gross bld nml tone			
				Genitalia	✓ $\phi$ prethral bld			
				Extremities	✓ $\phi$ deform $\phi$ tenderness			
				Skin	face sym.			
				Neuro.	O Awake but sleepy, localized to pain			
				Psych.	O Responds most w/ extreme at eye opening to pain			

CONSULTANT:	SERVICE:	TIME CALLED	TIME ARRIVED	CONDITION ON DISCHARGE	DISPOSITION	TIME OUT
		AM/PM	AM/PM	<input checked="" type="checkbox"/> GOOD	<input type="checkbox"/> HOME	AM
		AM/PM	AM/PM	<input type="checkbox"/> FAIR	<input checked="" type="checkbox"/> ADMIT	PM
		AM/PM	AM/PM	<input type="checkbox"/> CRITICAL	<input type="checkbox"/> TRANSFER	
DISCHARGE IMPRESSION: <b>SIP MVA &amp; concussive synd (CPT)</b> <b>TRACTS, follow-up medical observation 1st EYE</b>				Return To: PCP / CLINIC / ED (CIRCLE ONE) [REDACTED] in [REDACTED] day		
INSTRUCTIONS: (circle) ASTHMA FEVER WOUND CARE CLEAR LIQUID DIET COLD SORE THROAT EAR INF. SPRAINS/CAST CARE BURNS HEAD TRAUMA OTHER						

THE CHILDREN'S HOSPITAL OF PHILADELPHIA, PENNSYLVANIA

EMERGENCY DEPARTMENT RECORD - Page 2

CHART COPY

MEDICAL RECORD NO [REDACTED]	BILLING NO [REDACTED]	REGISTRAR [REDACTED]	REGISTRATION DATE AND TIME [REDACTED] 96 1706	ATTENDING PHYSICIAN PECA	CHECK FOR RESUSCITATION
NAME/ADDRESS [REDACTED] AKA: Doe, JA [REDACTED] [REDACTED] AVE [REDACTED] PA	BIRTHDATE/AGE [REDACTED] / 91 5		SEX/RACE M/BL	ACCOMMODATION TYPE AER	NRS/GP/ADULT 5
RN SIGNATURES					

TIME	ATTENDING COMMENTS	SIGNATURE
------	--------------------	-----------

TIME ORDERED	ORDERS	M.D. SIGNATURE	TIME GIVEN	GIVEN BY
	CBC & diff.			
	ESR			
	Lytes			
	Rapid Strep / TC			
	BC			
	UC			
	UA			
	Shake (Sickle)			
	BUN / Creat			
	Glucose			
	Type & Cross			
	Urine Preg.			
	Tox. Screen: blood			
	C Culture			
	Chlamydia			
	X-Ray			

MD PROGRESS/PROCEDURE NOTES

meds: morphine 10mg. → CT (10pm)  
 i mkt (2 possible bones etc)  
 Head CT @ 10/17 on scan front CT  
 middle head appropriately 2 go posterior  
 Eye i 1 medial water of 11 (x). LFTS +  
 wavy funny althous. Awake enough to drink  
 gastrographin. Med 7 mildly tender on exam  
 No (to the) seen as we found. Contrasting  
 neck - midline trachea & spider @ 10:30 AM.  
 To in 10:45 sent. then i evaluation & plan  
 Tumor 300g/mr metastatic. CT abd ok. no ph  
 i plan / Shale to be

LAB / X-RAY RESULTS

WBC 12.4	HGB/HCT 13.4/38.4	PLT 452k
DIFF 48% 47% 4%	ESR 645	
NA 144	K 3.5	CL 0.9
CO <sub>2</sub> 23	GLU 136	BUN 9
CR .8	U/A DIP Cipro 233	THEO
U/A MICRO: RBC	WBC	BACT
CSF: WBC/DIFF		
CSF: RBC	PRO	GLU
R. STREP	PREG	SHAKE

X RAYS	
Y YS	
X HAYS	
OTHER	
OTHER	

Shale ok behavior prior to mkt  
 no supine 18 KG  
 ALLERGIES:  
 Head CT  
 Abd CT i Contrast  
 CSPINE  
 LFTS  
 6:45 pm Gastrographin oral soln  
 9cc in 240cc of juice PO  
 non. 1850 MP  
 6:45 LR 400cc IV bolus 1845 MP  
 then STAT  
 DS 1/2 NSS @ 60cc 2115h  
 1844

AER

# m

96

2000 for 6 weeks in stretch  
E for 1000

2100		106.	28	11457	13B1
------	--	------	----	-------	------

~~43 Br~~  
15

## NURSES' NOTES

### RN SIGNATURES

all  $\neq 1$  +  $\neq 2$

1920- Pt sleeping much stimulation  
- q'd to arouse them yet  
once awake ~~not~~ <sup>was</sup> cooperative  
trauma surg able to  
removed cerv 7 collar  
p pt demonstrated FROM  
7 neck. Pt able to drink  
juice/catheteropharynx  
Apr 15 - To CT NAD  
sitting up, abd distended  
no g/o pain. \_\_\_\_\_ 7

2050 Back to Ed — 7  
#10F S.S placed @ rages  
for decomposition aware  
soaps still — L  
2115 Report to GWA Bed  
read — a

**TIME  
ORDERED**

## ORDERS

**M.D.**  
**SIGNATURE**

**TIME  
GIVEN**

GIVEN  
BY

## INTAKE

## OUTPUT

## TIME

TOTAL FLUIDS/AMOUNT	
PO	IV
1000	1000

TIME

## URINE

OTHER

24 Agosto 400

GI-200.





CHILDREN'S HOSPITAL  
OF PHILADELPHIA

EMERGENCY DEPARTMENT  
NURSING TRIAGE / ASSESSMENT

ARRIVAL TIME \_\_\_\_\_

SORT TIME \_\_\_\_\_

TRIAGE TIME \_\_\_\_\_

MED. RECORD \_\_\_\_\_

<input type="checkbox"/> CRITICAL				<input checked="" type="checkbox"/> ACUTE				<input type="checkbox"/> URGENT				<input type="checkbox"/> NON URGENT			
ROOM #		(4)		TIME IN ROOM:		ID BAND:		<input type="checkbox"/>		DATE:					
PATIENT NAME:								AGE				4y			
STATED CHIEF COMPLAINT:												MVC			
PREVIOUS MEDICAL PROBLEMS:															
ALLERGIES:															
CURRENT MEDICATIONS: Tylenol cold															
												EXPOSURE TO INFECTIOUS DISEASE			
												<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
												IMMUNIZATIONS UP TO DATE			
												<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
												DATE OF LAST TETANUS			

NURSING ASSESSMENT

WEIGHT	18	KG	TEMPERATURE	Heart Rate	Resp. Rate	BP	TRAUMA SCORE			
TIME							TIME 1700 1800			
							GLASGOW COMA SCALE			
							On Adm 1 Hr p Adm			
							Eye Opening			
							Spontaneous 3 3			
							To Voice 3 3			
							To Pain 2 2			
							None 1 1			
							Verbal Response			
							Oriented 5 5			
							Confused 4 4			
							Inappropriate Words 3 3			
							Incomprehensible Sounds 1 1			
							None 1 1			
							Motor Response			
							Obeys Commands 6 6			
							Localizes (Pain) 5 5			
							Withdraws (Pain) 4 4			
							Flexion (Pain) 3 3			
							Extension (Pain) 2 2			
							None 1 1			
							TOTAL			
							13 15			
							GCS			
							14 - 15 5 5			
							11 - 13 4 4			
							8 - 10 3 3			
							5 - 7 2 2			
							3 - 4 1 1			
							Respiratory Rate			
							10 - 24 4 4			
							25 - 35 2 2			
							≥ 35 1 1			
							≤ 10 0 0			
							0 0 0			
							Respiratory Effort			
							Normal 1 1			
							Shallow 0 0			
							Retractive 0 0			
							Systolic Blood Pressure			
							≥ 90 3 3			
							70 - 90 2 2			
							50 - 70 1 1			
							≤ 50 0 0			
							0 0 0			
							Capillary Refill			
							Normal 1 1			
							Delayed 1 1			
							None 0 0			
							TOTAL			
							13 15			

INITIAL TREATMENT				SIGNATURES		TRAUMA SURGEON	
MEDICATIONS GIVEN: ACETAMINOPHEN				NURSE RN		NAME	
IBUPROFEN				SORTER RN		NOTIFICATION TIME: 1715	
NSS DRESSING <input type="checkbox"/> SLING <input type="checkbox"/> ICE <input type="checkbox"/> SPLINT <input type="checkbox"/>						ARRIVAL TIME: 1725	
X-RAY _____ TIME SENT _____ ANATOMY X-RAYED _____						NEUROSURGERY	
OTHER:				MD		NAME	
						NOTIFICATION TIME: 1715	
						ARRIVAL TIME: 1725	

Physician's Discharge Order & Discharge Note

(Discharge Order will not be carried out unless the entire form is completed.)

[REDACTED] WSA S  
[REDACTED] AVE S M2 NSP  
[REDACTED] PA [REDACTED] M  
[REDACTED] PATIENT PLATE [REDACTED]

Date: [REDACTED] 96 Time: 5:15 PM

Attending Physician at Time of Discharge: [REDACTED]

Physician's Discharge Note

1. Diagnoses & Complications - No Abbreviations

Blunt abdominal trauma and head trauma secondary to automobile accident

2. Procedures & Dates - If none, write none - No Abbreviations

Head CT ([REDACTED] 96) - Negative  
Abdomen CT ([REDACTED] 96) - Negative

3. Relevant Physical Examination findings at Discharge

Minor lacerations to lateral aspects of tongue and chipped molars (x2)

4. Discharge Instructions (If not applicable, write N/A)

Medications: Tylenol 150mg tab (chew)  
PO Q4-6 PRN  
PAIN

REQUIRED FOR TRAUMA PATIENTS FUNCTIONAL INDEPENDENCE MEASURE					
TO BE COMPLETED BY NURSING					
SKILL	4	3	2	1	0
FEEDING	✓				
LOCOMOTION	✓				
EXPRESSION	4/				
TRANSFER MOBILITY	✓				
SOCIAL INTERACTION	✓				

RN Signature

4 - Complete Independence 1 - Complete Dependence  
3 - Independent with Device 0 - Pediatric Less Than 2 Years  
2 - Modified Dependence (24 Months) Only

(SOFT) DIET

Diet: ~~Regular~~ #3  
Activity/Bath: ad lib  
Return to School/Day Care: as tolerated  
Treatments: Penidex solution Magic  
swish & spit Mouth  
Q4 PRN

Follow-up appointments:

- 2 weeks at TRAUMA clinic
- Contact Dentist for appt. as soon as possible

Call the doctor if:

- abdominal pain becomes severe
- mental status changes
- nausea and vomiting

[REDACTED] Physician's Signature

Resident to dictate discharge summary:

THE [REDACTED] HOSPITAL OF PHILADELPHIA [REDACTED] & [REDACTED] BLVD [REDACTED], PA [REDACTED]  
[REDACTED] MD, PATHOLOGIST-IN-CHIEF  
[REDACTED] (fax)

RUN DATE: [REDACTED]/96  
RUN TIME: 0043

SPECIMEN ACTIVITY REPORT BY LOCATION - INPATIENTS

PAGE 1

LOCATION  
[REDACTED]

PATIENT: [REDACTED] ACCT #: [REDACTED] LOC: [REDACTED] U #: [REDACTED]  
AGE/SX: 5Y 3M/M ROOM: [REDACTED] REG: [REDACTED]/96  
REG DR: [REDACTED], MD STATUS: ADM IN BED: 3 DIS:

SPEC #: [REDACTED] COLL: [REDACTED]/96-1734 STATUS: COMP REQ #: [REDACTED]  
RECD: [REDACTED]/96-1740 SUBM DR: [REDACTED]

ENTERED: [REDACTED]/96-1737  
ORDERED: FLUID BALANCE, LFT, AMYLASE, LIPASE  
COMMENTS: TDS# [REDACTED]  
1SST

OTHR DR:

Test	Result	Flag	Reference
<u>FLUID BALANCE</u>			
<u>ELECTROLYTES</u>			
SODIUM	144		136-145 mmol/L
POTASSIUM	3.5	L	3.8-5.4 mmol/L
CHLORIDE	109	H	98-106 mmol/L
CARBON DIOXD	23		20-26 mmol/L
<u>LFT</u>			
UREA NITROGN	9		8-21 mg/dL
CREATININE	0.4	L	0.6-1.2 mg/dL
GLUCOSE	136	H	75-110 mg/dL
BILIRUB TOTL	0.4	L	0.6-1.4 mg/dL
BILIRUB UNC	Not Done		0.2-1.0 mg/dL
TOTAL BILIRUBIN <1.5 MG/DL			
BILIRUB CONJ	Not Done		mg/dL
ALBUMIN	3.9		3.7-5.6 g/dL
AMYLASE	157	H	30-100 U/L
ALK PHOS	224		65-260 U/L
ALT	221	H	10-40 U/L
AST	483	H	10-45 U/L
LIPASE	233	H	25-110 U/L
GAMMA GLUTAM	20		11-34 U/L

SPEC #: [REDACTED] COLL: [REDACTED]/96-1734 STATUS: COMP REQ #: [REDACTED]  
RECD: [REDACTED]/96-1739 SUBM DR: [REDACTED]

ENTERED: [REDACTED]/96-1739  
ORDERED: CBC WITH DIFF  
COMMENTS: TDS# [REDACTED]  
OTHR DR:

Test	Result	Flag	Reference
<u>CBC WITH DIFF</u>			
<u>HEMOGRAM</u>			
WBC	12.4	H	4.5-11.0 THOU/uL
RBC	4.74		4.5-5.9 MIL/uL
HGB	13.4	L	13.5-17.0 gm/dl

THE [REDACTED] HOSPITAL OF PHILADELPHIA [REDACTED] & [REDACTED] BLVD [REDACTED], PA [REDACTED]  
[REDACTED] MD, PATHOLOGIST-IN-CHIEF  
[REDACTED] (fax)

RUN DATE: [REDACTED]/96

RUN TIME: 0043

SPECIMEN ACTIVITY REPORT BY LOCATION - INPATIENTS

PAGE 2

LOCATION  
[REDACTED]

SPEC#: [REDACTED] PATIENT: [REDACTED] [REDACTED] (Continued)

Test	Result	Flag	Reference
HCT	38.6	L	41.0-52.0 %
MCV	81.5		80.0-100.0 um3
MCH	28.3		26.0-34.0 uug
MCHC	34.7		31.0-37.0 g/dl
RDW	12.9		11.5-14.5
PLT	452	H	150-400 THOU/uL
MPV	7.7		7.4-10.4 cu mi
<u>DIFF</u>			
SEG. NEUT.	48.0		40-62 %
EOSINOPHILS	0.9		%
BASOPHILS	0.6		%
LYMPHOCYTES	46.5	H	27-40 %
MONOCYTES	4.0		3-9 %
PLT ESTIMATE	AUTOMATED DIFF		